# REPORT RESUMES

ED 019 304 UD 000 111

PROGRESS OF PUBLIC EDUCATION IN THE UNITED STATES OF AMERICA, 1963-64. A REPORT.

OFFICE OF EDUCATION (DHEW), WASHINGTON, D.C.

REPORT NUMBER OE-10005-64-A PUB DATE 64

EDRS PRICE MF-$0.50 HC-$3.32 81P.

DESCRIPTORS- *STATISTICAL DATA, *TEACHER EDUCATION, *EDUCATIONAL OBJECTIVES, *PUBLIC EDUCATION, STUDENT ENROLLMENT, GRADUATES, ACADEMIC ACHIEVEMENT, SCHOOL HOLDING POWER, SCHOOL FUNDS, EXPENDITURES, INTERNATIONAL EDUCATION, HISTORY, ORGANIZATION, PROGRAM DESCRIPTIONS, TABLES (DATA), TEACHERS COLLEGES, PROFESSIONAL ASSOCIATION, PRESERVICE EDUCATION,

THIS PROGRESS REPORT GIVES STATISTICAL DATA ON IMPORTANT QUALITATIVE AND QUANTITATIVE DEVELOPMENTS IN PUBLIC EDUCATION IN THE UNITED STATES. INFORMATION ON ENROLLMENTS, SCHOOL RETENTION RATES AND EDUCATIONAL ATTAINMENT, LEVELS OF SUPPORT, AND INVESTMENT IN ELEMENTARY AND SECONDARY SCHOOLS IS INCLUDED IN THIS SECTION. A SECOND SECTION CONTAINS AN OVERVIEW OF TEACHER EDUCATION AND DISCUSSES FUNDAMENTAL VALUES AND RESPONSIBILITIES, HISTORICAL DEVELOPMENTS, ORGANIZATION AND ADMINISTRATION, PROGRAMS, NEW DEVELOPMENTS, AND PROBLEMS. THIS DOCUMENT IS ALSO AVAILABLE AS CATALOG NO. FS 5.210--10005-64-A FOR 30 CENTS FROM THE SUPERINTENDENT OF DOCUMENTS, U.S. GOVERNMENT PRINTING OFFICE, WASHINGTON, D.C. 20402. (AF)

F51091023
00111

OE-10005-64-A

INFORMATION RETRIEVAL CENTER ON THE DISADVANTAGED
Ferkauf Graduate School of Education, Yeshiva University

00111

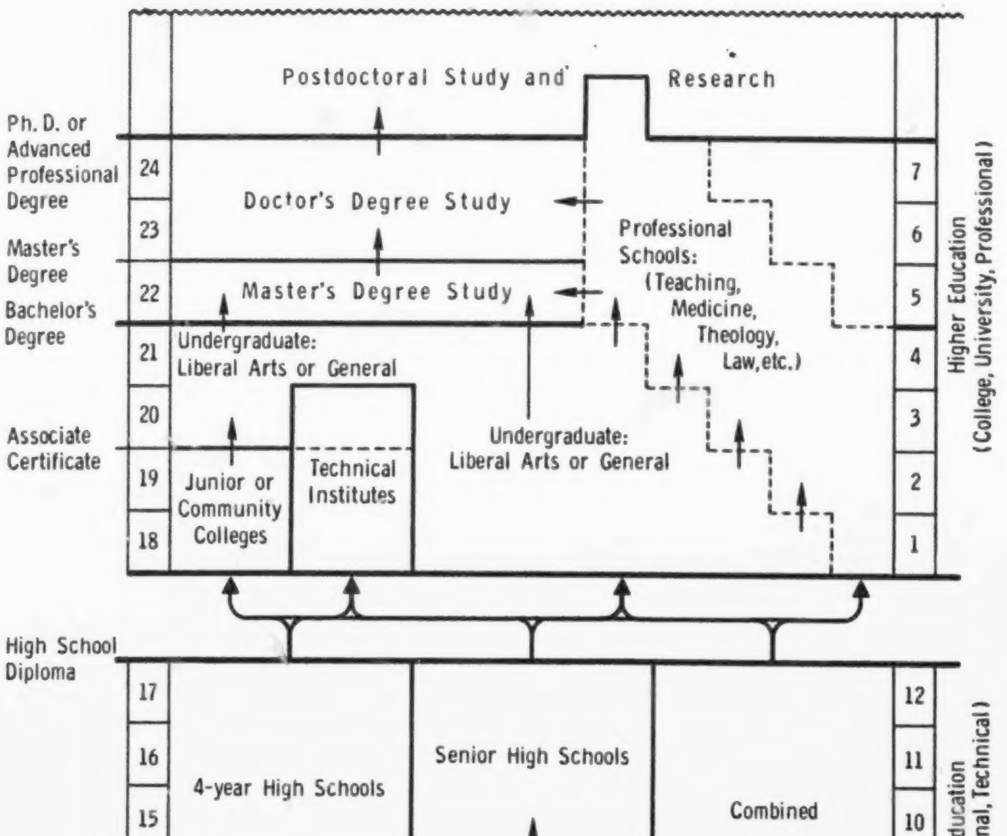
ED019304

# Progress of Public Education in the United States of America

## 1963-64

UD 000 111

U.S. DEPARTMENT OF
HEALTH, EDUCATION, AND WELFARE
Office of Education


Postdoctoral Study and Research
Ph. D. or Advanced Professional Degree
Doctor's Degree Study
Master's Degree
Master's Degree Study
Bachelor's Degree
Professional Schools: (Teaching, Medicine, Theology, Law, etc.)
Undergraduate: Liberal Arts or General
Associate Certificate
Junior or Community Colleges
Technical Institutes
Undergraduate: Liberal Arts or General
Higher Education (College, University, Professional)
High School Diploma
4-year High Schools
Senior High Schools
Junior High Schools
Combined Junior - Senior High Schools
(8-4)
(6-3-3)
(6-6)
Secondary Education (Academic, Vocational, Technical)
Elementary (or Primary) Schools
Kindergartens
Nursery Schools
Elementary (or Primary) Education
Age
24
23
22
21
20
19
18
17
16
15
14
13
12
11
10
9
8
7
6
5
4
3
Grade
7
6
5
4
3
2
1
12
11
10
9
8
7
6
5
4
3
2
1
K
NS

The Structure of Education in the United States

00111

INFORMATION RETRIEVAL CENTER ON THE DISADVANTAGED
Ferkauf Graduate School of Education, Yeshiva University

OE-10005-64-A

# *Progress* OF *Public Education* IN THE *United States* OF *America*

## 1963-64

REPORT OF THE OFFICE OF EDUCATION, U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE TO THE TWENTY-SEVENTH INTERNATIONAL CONFERENCE ON PUBLIC EDUCATION, GENEVA, SWITZERLAND, JULY 6-17, 1964, JOINTLY SPONSORED BY THE UNITED NATIONS EDUCATIONAL, SCIENTIFIC, AND CULTURAL ORGANIZATION AND THE INTERNATIONAL BUREAU OF EDUCATION

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL OFFICE OF EDUCATION POSITION OR POLICY.

UD 000 111

U.S. DEPARTMENT OF
HEALTH, EDUCATION, AND WELFARE
ANTHONY J. CELEBREZZE, *Secretary*

WASH DC
Office of Education, FRANCIS KEPPEL, *Commissioner*

111

Superintendent of Documents Catalog No. FS 5.210:10005-64-A

U.S. GOVERNMENT PRINTING OFFICE
WASHINGTON : 1964

For sale by the Superintendent of Documents, U.S. Government Printing Office
Washington, D.C., 20402 · Price 30 cents

# Contents

Page

Introduction ..... v

PART I. GENERAL STATISTICS ON EDUCATION IN THE U.S.A.

Enrollment ..... 1
Graduates ..... 2
School Retention Rates and Educational Attainment ..... 2
Income ..... 4
Expenditures ..... 4
International Education ..... 7

PART II. TEACHER EDUCATION IN THE U.S.A.

Overview ..... 23
Basic Values and Responsibilities ..... 24
Historical Developments ..... 30
Patterns of Organization and Control ..... 36
Programs ..... 55
Developments ..... 69
Problems ..... 71
Outlook ..... 73

TABLES

1. Fall enrollment in educational institutions, by grade level and type of school: United States, 1962 and 1963 ..... 8
2. Comparative statistics on enrollment, teachers, and school-housing in full-time public elementary and secondary schools: United States, fall 1958 and 1963 ..... 9
3. Enrollment in grades 9–12 of public and nonpublic schools compared with population 14–17 years of age: United States, selected years from 1889–90 to 1962–63 ..... 10

Page

4. Enrollment in federally aided vocational classes, by type of program: United States and outlying parts, selected years from 1919–20 to 1962–63 11
5. Number of high school graduates compared with population 17 years of age: United States, selected years from 1869–70 to 1962–63 12
6. Earned degrees conferred by institutions of higher education: United States, selected years from 1869–70 to 1962–63 13
7. Estimated retention rates, 5th grade through college entrance, in public and nonpublic schools: United States, 1924–32 to 1954–62 14
8. Level of school completed by persons 25 years old and over and 25 to 29 years old: United States, selected years from 1940 to 1962 15
9. Percent of illiteracy in the population: United States, 1900 to 1960 15
10. Revenue receipts for public elementary and secondary schools, by source: United States, selected years from 1919–20 to 1963–64 16
11. Federal funds for education and related activities: Fiscal years 1962 and 1963 17
12. Total and per-pupil expenditures for public elementary and secondary education: United States, selected years from 1919–20 to 1963–64 18
13. Gross national product related to total expenditures for education: United States, selected years from 1929 to 1962 19
14. Expenditure of Federal, State, and local funds for vocational education: United States and outlying parts, selected years from 1919–20 to 1961–62 20
15. Students from abroad enrolled in institutions of higher education in the United States: 1957–58 to 1962–63 21
16. Number of participants in international education programs administered by the United States Office of Education, 1953–54, 1958–59, and 1963–64 22

## FIGURES

1. Estimated retention rates, 5th grade through college entrance, in public and nonpublic schools: United States, 1924–32 to 1954–62 3
2. Revenue receipts for public elementary and secondary schools, by source: United States, 1961–62 5
3. Summary of expenditures for public elementary and secondary schools: United States, 1961–62 6

## CHART

The Structure of Education in the United States Inside front cover

INFORMATION RETRIEVAL CENTER ON THE DISADVANTAGED
Ferkauf Graduate School of Education, Yeshiva University

# Introduction

EDUCATION FOR ALL, a fundamental principle on which the public schools of the United States were established, has become more imperative than ever before. Our society demands that certain learnings and competencies be common to all citizens. Education for every child is therefore an obligation which the Nation not only supports but makes real to its citizens.

This 1964 report on progress of public education in the United States will as usual be in two parts. Part I gives statistical data on important qualitative and quantitative developments, and the tables show the recent expansion of educational opportunities as well as the growth of education over several decades. In this progress review the reader may see the movement toward educational goals which this Nation has set and some of American education's significant accomplishments. Enrollments, educational attainment, levels of support, investment in elementary and secondary schools, and degrees conferred by colleges and universities are among the basic statistical data which the report presents to facilitate the annual comparative survey of the country at large.

Part II describes the pattern and scope of teacher education in the United States today. The teachers in this country have gradually earned the professional status which they now enjoy. Commensurate with their status is the all-but-universal requirement that they have a full university education. Many forms of postgraduate education and inservice education enrich the stock of educational attainment embodied in the teaching profession.

The current high level of professional preparation and competence of the present generation of teachers is not, however, deemed sufficient to surmount the challenges confronting them. The 1964 report shows how teachers' organizations, voluntary accreditation groups, colleges and universities, and local, State, and Federal school authorities work together to raise to ever-higher levels the professional standards of teachers in the United States.

A great many studies have been written and published on teacher education during the past few years. The present one hopefully will clarify teacher education in the United States for those unfamiliar with it, and will also add some salient ideas and viewpoints to the growing volume of literature about the present status and future trends in this vital field.

First steps in teaching and learning.

# Part I. General Statistics on Education in the U.S.A.

## Enrollment

In the fall of 1963, enrollment in educational institutions in the United States increased for the 19th consecutive year and reached another alltime high. The number of students in public and nonpublic institutions at all educational levels totaled 51.7 million (table 1).* This total was 3.8 higher than the total of 49.8 million students enrolled 1 year earlier. The largest increase (7.7 percent) over the preceding year occurred at the higher education level. Enrollment in grades 9 through 12 rose 6.6 percent, while that in kindergarten through grade 9 rose 2.4 percent.

Enrollment in public elementary and secondary schools in the fall of 1963 was 18 percent greater than it had been 5 years earlier, but the number of classroom teachers rose almost 21 percent during the same period (table 2). This latter increase resulted in a slight decrease of pupil-teacher ratio--from 26.1 pupils per teacher to 25.5. During the same period the number of instruction rooms available increased at the same rate as the number of teachers, rising from 1.2 million to 1.5 million.

A major trend in American education during the 20th century has been the increasing number and proportion of students who enroll in secondary education programs. Table 3 provides some indication of the growth of secondary education in this country. From 1890 to 1963, while the population 14 to 17 years of age little more than doubled, enrollment in grades 9 through 12 increased more than 30 times. In 1890 only about 1 person out of 15 in the 14–17 age group was enrolled in school; in 1963, the figure was more than 9 out of 10.

For more than 45 years the Federal Government has assisted State and local governments in providing vocational education programs. In recent years new programs have been added to the traditional classes in agriculture, home economics, and trades and industry, and the number of participants has increased at a rapid rate. More than 4 million students were enrolled in federally aided vocational classes in 1963 (table 4).

---

*See tables beginning on page 8.

## Graduates

Paralleling the increase in school enrollment is a corresponding rise in the number and proportion of high school and college graduates. As recently as 1890, only 3.5 percent of our young people were graduating from high school. That year may be compared with the year 1963, when there were 1,960,000 graduates, a number equal to more than 70 percent of the 17-year-olds in the population (table 5).

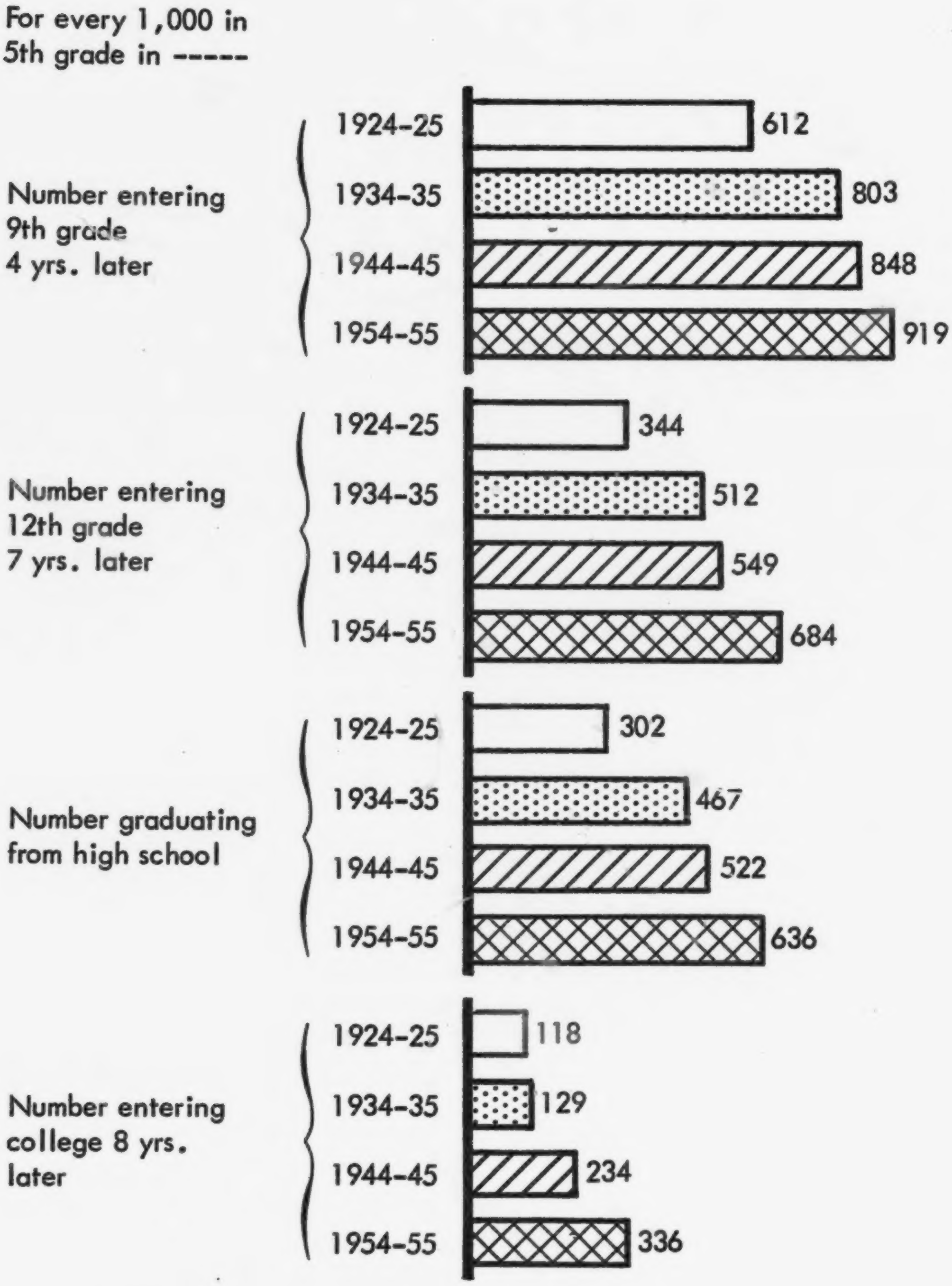
At the college level the contrast is even greater: the number of bachelor's degrees in 1963 was almost 30 times as great as in 1890, and the number of master's and doctor's degrees increased more than 80 times (table 6).

## School Retention Rates and Educational Attainment

Table 7 and figure 1 show the increase in school retention rates from the fifth grade through college entrance over the past 30 years. During this period the proportion of fifth-graders who go on to graduate from high school has more than doubled. The change in the relationship between first-time college students and the number of persons in the fifth grade 8 years earlier is even more striking. About 34 percent of the former fifth-graders now go on to college, as compared with only 12 percent, approximately, 30 years ago. The growth in retention rates has been steady with the exception of the war years, when many high school and college students left school to enter the military service or to secure employment in industry.

Since 1940 the Federal Bureau of the Census has collected statistics on the educational attainment of the U.S. population. Table 8, derived from Census publications, compares the educational attainment of the population 25–29 years of age with the total population 25 years of age and over. The former group in March 1962 had completed one more year of school than had the total adult population. Approximately two-thirds of the 25–29 age group were high school graduates, as compared with fewer than one-half of all adults; more than one-eighth of the 25–29-year-olds were college graduates, while only about 1 person in 11 among the total population was a college graduate.

**Figure 1.—Estimated retention rates, fifth grade through college entrance, in public and nonpublic schools: United States, 1924–32 to 1954–62**



SOURCE: U.S. Department of Health, Education, and Welfare, Office of Education. *Biennial Survey of Education in the United States*, and *Digest of Educational Statistics*.

Only 2.4 percent of the persons 14 years of age and over were illiterate in 1960 (table 9). This illiteracy rate may be compared with that of 3.3 percent in 1950, 4.8 percent in 1930, and 11.3 percent in 1900. Thus, the 20th century has seen a steady reduction in the percentage of persons in this country who are unable to read and write.

## Income

Public elementary and secondary schools in the United States derive most of their revenue from governmental sources. Income from other sources, such as gifts and fees, amounts to only about one-half of 1 percent of the total revenue receipts. Local governments contribute more than any other source, but in recent years an increasingly large proportion has come from State governments. In the school year 1961–62, the most recent year for which actual data are available, approximately 57 percent of the revenue receipts of public schools came from local sources, 39 percent from State governments, and 4 percent from the Federal Government (table 10 and figure 2).

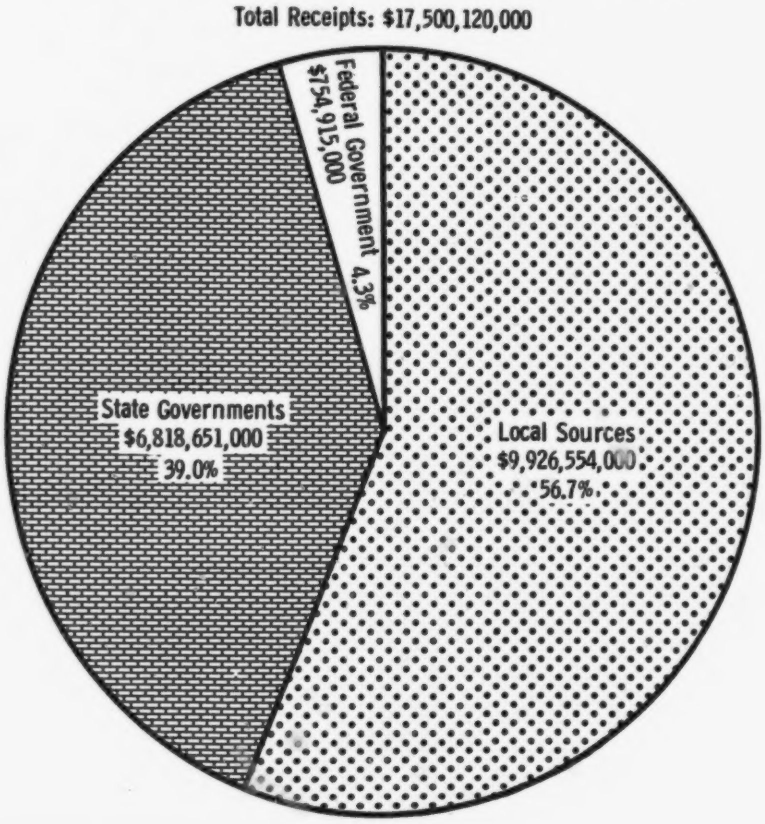
Although State and local governments have the primary responsibility for public education in the United States, the Federal Government for many years has maintained an active interest in the educational process. Recently an increasing amount of Federal support for all levels of education has been provided through a variety of programs administered by a number of Government agencies. Table 11 summarizes Federal grants, loans, and other funds for education and related activities in fiscal years 1962 and 1963.

## Expenditures

Estimated expenditures for public elementary and secondary education in the United States exceeded $21 billion during the school year 1963–64 (table 12). The annual expenditure per pupil in average daily attendance was more than $550. This may be compared with approximately $350 per pupil only 10 years ago.

According to the latest available figures on expenditures by purpose, public schools are expending approximately 54 percent of their funds for instruction and 16 percent for capital outlay (figure 3). The remaining 30 percent is spent for a variety of purposes, including administration, plant operation and maintenance, fixed charges, other school services, and interest on school debt.

**Figure 2.—Revenue receipts for public elementary and secondary schools, by source: United States, 1961–62.**

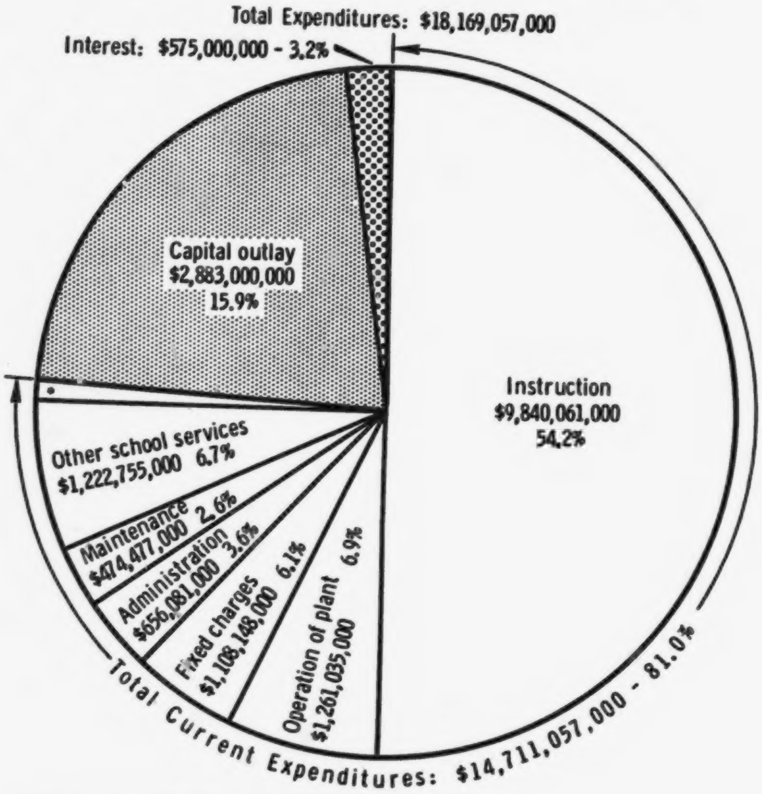


NOTE.—Data are for 50 States and the District of Columbia.

SOURCE: U.S. Department of Health, Education, and Welfare, Office of Education, *Preliminary Statistics of State School Systems, 1961–62.*

Table 13 compares total expenditures for all levels of public and private education in the United States with the gross national product over the past 35 years. Educational expenditures totaled approximately $32 billion during the school year 1962–63, an amount equal to about 5.8 percent of the gross national product. This is the largest amount ever spent for education in this country in a single year. (Expenditure data for 1963–64 are not yet available, but they are expected to be even higher.) In terms of the gross national product, expenditures today are approximately three times greater than they were during the middle 1940's.

**Figure 3.—Summary of expenditures for public elementary and secondary schools: United States, 1961–62.**



*Other current expenditures: $148,500,000 - 0.8%

NOTE.—Data are for 50 States and the District of Columbia. Because of rounding, detail may not add to totals.

SOURCE: U.S. Department of Health, Education, and Welfare, Office of Education, *Preliminary Statistics of State School Systems, 1961–62.*

Expenditures for vocational education from Federal, State, and local funds are shown in table 14. In 1961–62, the Federal Government contributed 18 percent of the funds, the State governments 37 percent, and the local governments 45 percent. Total expenditures for vocational education have almost doubled in the past decade.

## International Education

The number of students from abroad enrolled in institutions of higher education in the United States rose from 43,000 in 1958 to 65,000 in 1963, an increase of almost 50 percent (table 15). In this latter year these students were enrolled preponderantly in engineering, humanities, physical and natural science, and social science. That same year 37 percent of the overseas students came from the Far East, 17 percent from Latin America, 14 percent from the Near East, 12 percent from Europe, and the remaining 20 percent from various other parts of the world.

Table 16 shows the number of participants in international education programs administered by the Office of Education—the Teacher Exchange Program, the Teacher Development Program, and the Technical Assistance Program. Programs of the Federal Government represent only a fraction of the activities of the United States in the field of international education. This field embraces not only the students from abroad who study here, but also thousands of students and teachers from the United States who go overseas each year to study, teach, and do research.

# Tables

## Table 1.—Fall enrollment in educational institutions, by grade level and type of school: United States, 1962 and 1963

| Grade level and type of school | Fall 1962 | Fall 1963 |
|---|---|---|
| **Total, elementary, secondary, and higher education** | **49,812,000** | **51,712,000** |
| Kindergarten through grade 8 | 34,131,000 | 34,954,000 |
| Public school systems (regular full time) | 28,731,000 | 29,354,000 |
| Nonpublic schools (regular full time)[1] | 5,200,000 | 5,400,000 |
| Other schools [1] [2] | 200,000 | 200,000 |
| Grades 9 through 12 | 11,506,000 | 12,263,000 |
| Public school systems (regular full time) | 10,106,000 | 10,863,000 |
| Nonpublic schools (regular full time)[1] | 1,300,000 | 1,300,000 |
| Other schools [1] [2] | 100,000 | 100,000 |
| Kindergarten through grade 12 | 45,637,000 | 47,217,000 |
| Public school systems (regular full time) | 38,837,000 | 40,217,000 |
| Nonpublic schools (regular full time)[1] | 6,500,000 | 6,700,000 |
| Other schools [1] [2] | 300,000 | 300,000 |
| Higher education: Universities, colleges, professional schools, junior colleges, normal schools, and teachers colleges (degree-credit enrollment) | 4,175,000 | 4,495,000 |

[1] Estimated.

[2] Includes Federal schools for Indians, federally operated elementary and secondary schools on posts, model and practice schools in teacher-training institutions, subcollegiate departments of institutions of higher education, and residential schools for exceptional children.

Note.—Data are for 50 States and the District of Columbia. Fall enrollment is usually smaller than school-year enrollment, since the latter is a cumulative figure which includes students who enroll at any time during the year.

Source: U.S. Department of Health, Education, and Welfare, Office of Education, surveys and estimates of the Division of Educational Statistics.

**Table 2.—Comparative statistics on enrollment, teachers, and schoolhousing in full-time public elementary and secondary schools: United States, fall 1958 and 1963**

| Item | Fall 1958 | Fall 1963 | Percentage change, 1958 to 1963 |
|---|---|---|---|
| **Enrollment** | | | |
| **Total** | **34, 080, 844** | **40, 217, 215** | **+18. 0** |
| Elementary schools | 23, 414, 947 | 25, 816, 893 | +10. 3 |
| Secondary schools | 10, 665, 897 | 14, 400, 322 | +35. 0 |
| **Classroom teachers** | | | |
| **Total** | **1, 306, 290** | **1, 576, 062** | **+20. 7** |
| Elementary schools | 814, 967 | 908, 536 | +11. 5 |
| Secondary schools | 491, 323 | 667, 526 | +35. 9 |
| **Pupil-teacher ratio** | | | |
| **All schools** | **26. 1** | **25. 5** | -------- |
| Elementary schools | 28. 7 | 28. 4 | -------- |
| Secondary schools | 21. 7 | 21. 6 | -------- |
| **Instruction rooms** | | | |
| **Total available** | **1, 231, 952** | **1, 486, 684** | **+20. 7** |
| Number completed during preceding school year | 72, 070 | 65, 300 | −9. 4 |

NOTE.—Data are for 50 States and the District of Columbia.

SOURCE: U.S. Department of Health, Education, and Welfare, Office of Education, *Fall 1963 Enrollment, Teachers, and Schoolhousing*.

## Table 3.—Enrollment in grades 9–12 of public and nonpublic schools compared with population 14–17 years of age: United States, selected years from 1889 to 1962–63

| School year | Enrollment, grades 9–12 and postgraduate[1] | | | Population 14–17 years of age[2] | Total number enrolled per 100 persons 14–17 years of age |
|---|---|---|---|---|---|
| | All schools | Public schools | Nonpublic schools | | |
| 1889–90 | 359, 949 | [3] 202, 963 | [3] 94, 931 | 5, 354, 653 | 6. 7 |
| 1899–1900 | 699, 403 | [3] 519, 251 | [3] 110, 797 | 6, 152, 231 | 11. 4 |
| 1909–10 | 1, 115, 398 | [3] 915, 061 | [3] 117, 400 | 7, 220, 298 | 15. 4 |
| 1919–20 | 2, 500, 176 | [3] 2, 200, 389 | [3] 213, 920 | 7, 735, 841 | 32. 3 |
| 1929–30 | 4, 804, 255 | [3] 4, 399, 422 | [3, 4] 341, 158 | 9, 341, 221 | 51. 4 |
| 1939–40 | 7, 123, 009 | 6, 635, 337 | 487, 672 | 9, 720, 419 | 73. 3 |
| 1949–50 | 6, 453, 009 | 5, 757, 810 | 695, 199 | 8, 404, 768 | 76. 8 |
| 1951–52 | 6, 596, 351 | 5, 917, 384 | 678, 967 | [5] 8, 516, 000 | 77. 5 |
| 1953–54 | 7, 108, 973 | 6, 330, 565 | 778, 408 | [5] 8, 861, 000 | 80. 2 |
| 1955–56 | 7, 774, 975 | 6, 917, 790 | 857, 185 | [5] 9, 207, 000 | 84. 4 |
| 1957–58 | 8, 869, 186 | 7, 905, 469 | 963, 717 | [5] 10, 139, 000 | 87. 5 |
| 1959–60 | 9, 599, 810 | 8, 531, 454 | 1, 068, 356 | 11, 154, 879 | 86. 1 |
| 1961–62 [6] | 10, 800, 000 | 9, 600, 000 | 1, 200, 000 | [5] 12, 004, 000 | 90. 0 |
| 1962–63 [6] | 11, 700, 000 | 10, 400, 000 | 1, 300, 000 | [5] 12, 743, 000 | 91. 8 |

[1] Unless otherwise indicated, includes enrollment in subcollegiate departments of institutions of higher education and in residential schools for exceptional children. Beginning in 1949–50, also includes Federal schools.

[2] Includes all persons residing in the United States, but excludes Armed Forces overseas. Data shown are actual figures from the decennial censuses of population unless otherwise indicated.

[3] Excludes enrollment in subcollegiate departments of institutions of higher education and in residential schools for exceptional children.

[4] Data for 1927–28.

[5] Estimated by the Bureau of the Census as of July 1 preceding the opening of the school year.

[6] Preliminary data.

NOTE.—Beginning in 1959–60, includes Alaska and Hawaii.

SOURCE: U.S.Department of Health, Education, and Welfare, Office of Education, *Biennial Survey of Education in the United States*, and *Digest of Educational Statistics*.

### Table 4.—Enrollment in federally aided vocational classes, by type of program: United States and outlying parts, selected years from 1919–20 to 1962–63

| School year | Total | Type of program | | | | | |
|---|---|---|---|---|---|---|---|
| | | Agriculture | Distributive occupations | Home economics | Trades and industry | Practical nursing | Technical education |
| 1919–20 | 265, 058 | 31, 301 | ---------- | 48, 938 | 184, 819 | ---------- | ---------- |
| 1929–30 | 981, 882 | 188, 311 | ---------- | 174, 967 | 618, 604 | ---------- | ---------- |
| 1939–40 | 2, 290, 741 | 584, 133 | 129, 433 | 818, 766 | 758, 409 | ---------- | ---------- |
| 1949–50 | 3, 364, 613 | 764, 975 | 364, 670 | 1, 430, 366 | 804, 602 | ---------- | ---------- |
| 1951–52 | 3, 165, 988 | 746, 402 | 234, 984 | 1, 391, 389 | 793, 213 | ---------- | ---------- |
| 1953–54 | 3, 164, 851 | 737, 502 | 220, 619 | 1, 380, 147 | 826, 583 | ---------- | ---------- |
| 1955–56 | 3, 413, 159 | 785, 599 | 257, 025 | 1, 486, 816 | 883, 719 | ---------- | ---------- |
| 1957–58 | 3, 629, 339 | 775, 892 | 282, 558 | 1, 559, 822 | 983, 644 | 27, 423 | ---------- |
| 1959–60 | 3, 768, 149 | 796, 237 | 303, 784 | 1, 588, 109 | 938, 490 | 40, 250 | 101, 279 |
| 1961–62 | 4, 072, 677 | 822, 664 | 321, 065 | 1, 725, 660 | 1, 005, 383 | 48, 985 | 148, 920 |
| 1962–63 [1] | 4, 286, 000 | 847, 000 | 339, 000 | 1, 803, 000 | 1, 056, 000 | 57, 000 | 184, 000 |

[1] Estimated by Office of Education.

SOURCE: U.S. Department of Health, Education, and Welfare, Office of Education, *Digest of Annual Reports of State Boards for Vocational Education*, and *Digest of Educational Statistics*.

**Table 5.—Number of high school graduates compared with population 17 years of age: United States, selected years from 1869–70 to 1962–63**

| School year | Population 17 years old [2] | High school graduates [1] | | | Number graduated per 100 persons 17 years of age |
|---|---|---|---|---|---|
| | | Total | Boys | Girls | |
| 1869–70 | 815, 000 | 16, 000 | 7, 064 | 8, 936 | 2. 0 |
| 1879–80 | 946, 026 | 23, 634 | 10, 605 | 13, 029 | 2. 5 |
| 1889–90 | 1, 259, 177 | 43, 731 | 18, 549 | 25, 182 | 3. 5 |
| 1899–1900 | 1, 489, 146 | 94, 883 | 38, 075 | 56, 808 | 6. 4 |
| 1909–10 | 1, 786, 240 | 156, 429 | 63, 676 | 92, 753 | 8. 8 |
| 1919–20 | 1, 855, 173 | 311, 266 | 123, 684 | 187, 582 | 16. 8 |
| 1929–30 | 2, 295, 822 | 666, 904 | 300, 376 | 366, 528 | 29. 0 |
| 1939–40 | 2, 403, 074 | 1, 221, 475 | 578, 718 | 642, 757 | 50. 8 |
| 1949–50 | 2, 034, 450 | 1, 199, 700 | 570, 700 | 629, 000 | 59. 0 |
| 1951–52 | 2, 040, 800 | 1, 196, 500 | 569, 200 | 627, 300 | 58. 6 |
| 1953–54 | 2, 128, 600 | 1, 276, 100 | 612, 500 | 663, 600 | 60. 0 |
| 1955–56 | 2, 270, 000 | 1, 414, 800 | 679, 500 | 735, 300 | 62. 3 |
| 1957–58 | 2, 324, 000 | 1, 505, 900 | 725, 500 | 780, 400 | 64. 8 |
| 1959–60 | 2, 862, 005 | 1, 864, 000 | 898, 000 | 966, 000 | 65. 1 |
| 1961–62 [3] | 2, 768, 000 | 1, 921, 000 | 940, 000 | 981, 000 | 69. 4 |
| 1962–63 [3] | 2, 772, 000 | 1, 960, 000 | 960, 000 | 1, 000, 000 | 70. 7 |

[1] Includes graduates of public and nonpublic schools.

[2] Data from the Bureau of the Census.

[3] Preliminary data.

NOTE.—Beginning in 1959–60, includes Alaska and Hawaii.

SOURCE: U.S. Department of Health, Education, and Welfare, Office of Education, *Biennial Survey of Education in the United States*, and *Digest of Educational Statistics*.

## Table 6.—Earned degrees conferred by institutions of higher education: United States, selected years from 1869–70 to 1962–63

| Year | Earned degrees conferred | | | |
|---|---|---|---|---|
| | All degrees | Bachelor's and first professional | Master's except first professional | Doctor's |
| 1869–70 | 9, 372 | 9, 371 | 0 | 1 |
| 1879–80 | 13, 829 | 12, 896 | 879 | 54 |
| 1889–90 | 16, 703 | 15, 539 | 1, 015 | 149 |
| 1899–1900 | 29, 375 | 27, 410 | 1, 583 | 382 |
| 1909–10 | 39, 755 | 37, 199 | 2, 113 | 443 |
| 1919–20 | 53, 516 | 48, 622 | 4, 279 | 615 |
| 1929–30 | 139, 752 | 122, 484 | 14, 969 | 2, 299 |
| 1939–40 | 216, 521 | 186, 500 | 26, 731 | 3, 290 |
| 1949–50 | 496, 661 | 432, 058 | 58, 183 | 6, 420 |
| 1951–52 | 401, 203 | 329, 986 | 63, 534 | 7, 683 |
| 1953–54 | 356, 608 | 290, 825 | 56, 788 | 8, 995 |
| 1955–56 | 376, 973 | 308, 812 | 59, 258 | 8, 903 |
| 1957–58 | 436, 979 | 362, 554 | 65, 487 | 8, 938 |
| 1959–60 | 476, 704 | 392, 440 | 74, 435 | 9, 829 |
| 1961–62 | 514, 323 | 417, 846 | 84, 855 | 11, 622 |
| 1962–63 [1] | 538, 300 | 438, 000 | 87, 900 | 12, 400 |

[1] Estimated.

NOTE.—Beginning in 1959–60, includes Alaska and Hawaii.

SOURCE: U.S. Department of Health, Education, and Welfare, Office of Education, *Biennial Survey of Education in the United States*, and circulars on *Earned Degrees Conferred*.

## Table 7.—Estimated retention rates, 5th grade through college entrance, in public and nonpublic schools: United States, 1924–32 to 1954–62

| School year in which pupils entered 5th grade | For every 1,000 pupils entering 5th grade in a specified year, this number— | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Entered 6th grade 1 year later | Entered 7th grade 2 years later | Entered 8th grade 3 years later | Entered 9th grade 4 years later | Entered 10th grade 5 years later | Entered 11th grade 6 years later | Entered 12th grade 7 years later | Graduated from high school 7 years later (i.e., in the year shown) | Entered college 8 years later |
| 1924–25 | 911 | 798 | 741 | 612 | 470 | 384 | 344 | 302 (in 1932) | 118 |
| 1926–27 | 919 | 824 | 754 | 677 | 552 | 453 | 400 | 333 (in 1934) | 129 |
| 1928–29 | 939 | 847 | 805 | 736 | 624 | 498 | 432 | 378 (in 1936) | 137 |
| 1930–31 | 943 | 872 | 824 | 770 | 652 | 529 | 463 | 417 (in 1938) | 148 |
| 1932–33 | 935 | 889 | 831 | 786 | 664 | 570 | 510 | 455 (in 1940) | 160 |
| 1934–35 | 953 | 892 | 842 | 803 | 711 | 610 | 512 | 467 (in 1942) | 129 |
| 1936–37 | 954 | 895 | 849 | 839 | 704 | 554 | 425 | 393 (in 1944) | 121 |
| 1938–39 | 955 | 908 | 853 | 796 | 655 | 532 | 444 | 419 (in 1946) | (1) |
| 1940–41 | 968 | 910 | 836 | 781 | 697 | 566 | 507 | 481 (in 1948) | (1) |
| 1942–43 | 954 | 909 | 847 | 807 | 713 | 604 | 539 | 505 (in 1950) | 205 |
| 1944–45 | 952 | 929 | 858 | 848 | 748 | 650 | 549 | 522 (in 1952) | 234 |
| 1946–47 | 954 | 945 | 919 | 872 | 775 | 641 | 583 | 553 (in 1954) | 283 |
| 1948–49 | 984 | 956 | 929 | 863 | 795 | 706 | 619 | 581 (in 1956) | 301 |
| 1950–51 | 981 | 968 | 921 | 886 | 809 | 709 | 632 | 582 (in 1958) | 308 |
| 1952–53 | 974 | 965 | 936 | 904 | 835 | 746 | 667 | 621 (in 1960) | [2] 328 |
| 1954–55 | 980 | 979 | 948 | 919 | 855 | [2] 764 | [2] 684 | [2] 636 (in 1962) | [2] 336 |

[1] Lack of detailed information about students who were veterans prevents reliable calculation.

[2] Preliminary data.

Source: U.S. Department of Health, Education, and Welfare, Office of Education. *Biennial Survey of Education in the United States*, and *Digest of Educational Statistics*.

### Table 8.—Level of school completed by persons 25 years old and over, and 25 to 29 years old: United States, selected years from 1940 to 1962

| Date and age | Percent by level of school completed | | | Median school years completed |
|---|---|---|---|---|
| | Fewer than 5 years of elementary school | 4 or more years of high school | 4 or more years of college | |
| **25 years and over** | | | | |
| March 1962 | 7.8 | 46.3 | 8.9 | 11.4 |
| March 1959 | 8.0 | 42.9 | 7.9 | 11.0 |
| March 1957 | 9.0 | 40.8 | 7.5 | 10.6 |
| October 1952 | 9.1 | 38.4 | 6.9 | 10.1 |
| April 1950 | 10.8 | 33.4 | 6.0 | 9.3 |
| April 1947 | 10.4 | 32.6 | 5.4 | 9.0 |
| April 1940 | 13.5 | 24.1 | 4.6 | 8.4 |
| **25 to 29 years** | | | | |
| March 1962 | 2.4 | 65.9 | 13.1 | 12.4 |
| March 1959 | 3.0 | 63.3 | 11.0 | 12.3 |
| October 1952 | 3.8 | 56.7 | 10.0 | 12.2 |
| April 1950 | 4.6 | 51.7 | 7.7 | 12.1 |
| April 1940 | 5.9 | 37.8 | 5.8 | 10.4 |

NOTE.—Beginning in 1962, includes Alaska and Hawaii. Data for 1962 are not strictly comparable with earlier years.

SOURCE: U.S. Department of Commerce, Bureau of the Census, *Current Population Reports*, Series P-20, No. 99 and No. 121.

### Table 9.—Percent of illiteracy [1] in the population: United States, 1900 to 1960

| Year | Percent illiterate [2] | Year | Percent illiterate [2] |
|---|---|---|---|
| 1900 | 11.3 | 1930 | 4.8 |
| 1910 | 8.3 | 1950 [3] | 3.3 |
| 1920 | 6.5 | 1960 [3] | 2.4 |

[1] Illiteracy is defined as the inability to read and write a simple message either in English or in any other language.

[2] Percentages refer to the population 15 years old and over from 1900 to 1930, and to the population 14 years old and over in 1950 and 1960.

[3] Estimated.

NOTE.—Data are for 50 States and the District of Columbia.

SOURCE: U.S. Department of Commerce, Bureau of the Census, *Current Population Reports*, Series P-23, No. 8.

## Table 10.—Revenue receipts for public elementary and secondary schools, by source: United States, selected years from 1919–20 to 1963–64

| School year | Total | Federal Government | State governments | Local sources[1] |
|---|---|---|---|---|
| | AMOUNTS | | | |
| 1919–20 | $970, 120, 000 | $2, 475, 000 | $160, 085, 000 | $807, 561, 000 |
| 1929–30 | 2, 088, 557, 000 | 7, 334, 000 | 353, 670, 000 | 1, 727, 553, 000 |
| 1939–40 | 2, 260, 527, 000 | 39, 810, 000 | 684, 354, 000 | 1, 536, 363, 000 |
| 1949–50 | 5, 437, 044, 000 | 155, 848, 000 | 2, 165, 689, 000 | 3, 115, 507, 000 |
| 1951–52 | 6, 423, 816, 000 | 227, 711, 000 | 2, 478, 596, 000 | 3, 717, 507, 000 |
| 1953–54 | 7, 866, 852, 000 | 355, 237, 000 | 2, 944, 103, 000 | 4, 567, 512, 000 |
| 1955–56 | 9, 686, 677, 000 | 441, 442, 000 | 3, 828, 886, 000 | 5, 416, 350, 000 |
| 1957–58 | 12, 181, 513, 000 | 486, 484, 000 | 4, 800, 368, 000 | 6, 894, 661, 000 |
| 1959–60 | 14, 746, 618, 000 | 651, 639, 000 | 5, 768, 047, 000 | 8, 326, 932, 000 |
| 1961–62[2] | 17, 500, 120, 000 | 754, 915, 000 | 6, 818, 651, 000 | 9, 926, 554, 000 |
| 1963–64[3] | 20, 153, 344, 000 | 708, 996, 000 | 8, 070, 419, 000 | 11, 373, 929, 000 |
| | PERCENTAGE DISTRIBUTION | | | |
| 1919–20 | 100. 0 | 0. 3 | 16. 5 | 83. 2 |
| 1929–30 | 100. 0 | . 4 | 16. 9 | 82. 7 |
| 1939–40 | 100. 0 | 1. 8 | 30. 3 | 68. 0 |
| 1949–50 | 100. 0 | 2. 9 | 39. 8 | 57. 3 |
| 1951–52 | 100. 0 | 3. 5 | 38. 6 | 57. 9 |
| 1953–54 | 100. 0 | 4. 5 | 37. 4 | 58. 1 |
| 1955–56 | 100. 0 | 4. 6 | 39. 5 | 55. 9 |
| 1957–58 | 100. 0 | 4. 0 | 39. 4 | 56. 6 |
| 1959–60 | 100. 0 | 4. 4 | 39. 1 | 56. 5 |
| 1961–62[2] | 100. 0 | 4. 3 | 39. 0 | 56. 7 |
| 1963–64[3] | 100. 0 | 3. 5 | 40. 1 | 56. 4 |

[1] Includes receipts from intermediate and local governments. Also includes a relatively small amount from other sources (gifts and tuition and transportation fees from patrons), which accounted for 0.5 percent of total revenue receipts in 1959–60.

[2] Data from *Preliminary Statistics of State School Systems, 1961–62.*

[3] Data from *Estimates of School Statistics, 1963–64*, copyright 1963 by the National Education Association. Used by permission.

NOTE.—Beginning in 1959–60, includes Alaska and Hawaii. Because of rounding, detail may not add to totals.

SOURCE of final data: U.S. Department of Health, Education, and Welfare, Office of Education, *Statistics of State School Systems, 1959–60.*

## Table 11.—Federal funds for education and related activities: Fiscal years 1962 and 1963

| Level and type of support | 1962 | 1963 |
|---|---|---|
| *Federal funds supporting education in educational institutions:* | | |
| **Grants, total** | **$1,636,328,000** | **$1,899,109,000** |
| Elementary-secondary education | 554, 412, 000 | 601, 513, 000 |
| Higher education | 884, 731, 000 | 1, 078, 652, 000 |
| Adult education | 85, 506, 000 | 106, 692, 900 |
| Not classified by level | 111, 679, 000 | 112, 252, 000 |
| **Loans, total** | **438,913,000** | **481,851,000** |
| Elementary-secondary education | 672, 000 | 616, 000 |
| Higher education | 438, 241, 000 | 481, 235, 000 |
| *Other Federal funds for education and related activities:* [1] | | |
| Research and development | 912, 268, 000 | 1, 089, 124, 000 |
| Related school services | 374, 386, 000 | 386, 708, 000 |
| Training of Federal personnel | 84, 104, 000 | 83, 362, 000 |
| Library services | 22, 174, 000 | 23, 896, 000 |
| International education | 57, 564, 000 | 63, 000, 000 |
| Other | 70, 396, 000 | 75, 021, 000 |

[1] Includes payments for services rendered to the Federal Government.

SOURCE: U.S. Department of Health, Education, and Welfare, Office of Education, surveys of *Federal Funds for Education and Related Activities.*

**Table 12.—Total and per-pupil expenditures for public elementary and secondary education: United States, selected years from 1919–20 to 1963–64**

| School year | Total | Total expenditure per pupil in average daily attendance |
|---|---|---|
| 1919–20 | $1, 036, 151, 000 | $64 |
| 1929–30 | 2, 316, 790, 000 | 108 |
| 1939–40 | 2, 344, 049, 000 | 106 |
| 1949–50 | 5, 837, 643, 000 | 259 |
| 1951–52 | 7, 344, 237, 000 | 313 |
| 1953–54 | 9, 092, 449, 000 | 351 |
| 1955–56 | 10, 955, 047, 000 | 388 |
| 1957–58 | 13, 569, 163, 000 | 449 |
| 1959–60 | 15, 613, 255, 000 | 472 |
| 1961–62 [1] | 18, 169, 057, 000 | 515 |
| 1963–64 [2] | 21, 201, 199, 000 | 559 |

[1] Data from *Preliminary Statistics of State School Systems, 1961–62.*

[2] Data from *Estimates of School Statistics, 1963–64,* Copyright 1963 by the National Education Association. Used by permission.

NOTE.—Beginning in 1959–60, includes Alaska and Hawaii.

SOURCE of final data: U.S. Department of Health, Education, and Welfare, Office of Education, *Biennial Survey of Education in the United States,* and *Statistics of State School Systems, 1959–60.*

## Table 13.—Gross national product related to total expenditures [1] for education: United States, selected years from 1929 to 1962

| Calendar year | Gross national product | School year | Expenditures for education | |
|---|---|---|---|---|
| | | | Total | As a percent of gross national product |
| 1929 | $104, 436, 000, 000 | 1929–30 | $3, 233, 601, 000 | 3. 10 |
| 1931 | 76, 271, 000, 000 | 1931–32 | 2, 966, 464, 000 | 3. 89 |
| 1933 | 55, 964, 000, 000 | 1933–34 | 2, 294, 896, 000 | 4. 10 |
| 1935 | 72, 502, 000, 000 | 1935–36 | 2, 649, 914, 000 | 3. 65 |
| 1937 | 90, 780, 000, 000 | 1937–38 | 3, 014, 074, 000 | 3. 32 |
| 1939 | 91, 095, 000, 000 | 1939–40 | 3, 199, 593, 000 | 3. 51 |
| 1941 | 125, 822, 000, 000 | 1941–42 | 3, 203, 548, 000 | 2. 55 |
| 1943 | 192, 513, 000, 000 | 1943–44 | 3, 522, 007, 000 | 1. 83 |
| 1945 | 213, 558, 000, 000 | 1945–46 | 4, 167, 597, 000 | 1. 95 |
| 1947 | 234, 289, 000, 000 | 1947–48 | 6, 574, 379, 000 | 2. 81 |
| 1949 | 258, 054, 000, 000 | 1949–50 | 8, 795, 635, 000 | 3. 41 |
| 1951 | 328, 975, 000, 000 | 1951–52 | 11, 312, 446, 000 | 3. 44 |
| 1953 | 365, 385, 000, 000 | 1953–54 | 13, 949, 876, 000 | 3. 82 |
| 1955 | 397, 469, 000, 000 | 1955–56 | 16, 811, 651, 000 | 4. 23 |
| 1957 | 442, 769, 000, 000 | 1957–58 | 21, 119, 565, 000 | 4. 77 |
| 1959 | 482, 704, 000, 000 | 1959–60 | 24, 722, 464, 000 | 5. 12 |
| 1961 | 518, 173, 000, 000 | 1961–62 | [2] 29, 430, 000. 000 | 5. 68 |
| 1962 | 554, 894, 000, 000 | 1962–63 | [2] 31, 980, 000, 000 | 5. 76 |

---

[1] Includes expenditures of public and nonpublic schools at all levels of education (elementary, secondary, and higher education).

[2] Estimated.

NOTE.—Beginning with 1959–60 school year, includes Alaska and Hawaii.

SOURCES: U.S. Department of Health, Education, and Welfare, Office of Education, *Biennial Survey of Education in the United States*, and *Digest of Educational Statistics*, 1963 edition; and U.S. Department of Commerce, Office of Business Economics, *Survey of Current Business*, July 1958 and July 1963.

**Table 14.—Expenditure of Federal, State, and local funds for vocational education: United States and outlying parts, selected years from 1919–20 to 1961–62**

| School year | Total | Federal | State | Local |
|---|---|---|---|---|
| 1919–20 | $8, 535, 000 | $2, 477, 000 | $2, 670, 000 | $3, 388, 000 |
| 1929–30 | 29, 909, 000 | 7, 404, 000 | 8, 233, 000 | 14, 272, 000 |
| 1939–40 | 55, 081, 000 | 20, 004, 000 | 11, 737, 000 | 23, 340, 000 |
| 1949–50 | 128, 717, 000 | 26, 623, 000 | 40, 534, 000 | 61, 561, 000 |
| 1951–52 | 146, 466, 000 | 25, 863, 000 | 47, 818, 000 | 72, 784, 000 |
| 1953–54 | 151, 289, 000 | 25, 419, 000 | 54, 550, 000 | 71, 320, 000 |
| 1955–56 | 175, 886, 000 | 33, 180, 000 | 61, 821, 000 | 80, 884, 000 |
| 1957–58 | 209, 748, 000 | 38, 733, 000 | 72, 305, 000 | 98, 710, 000 |
| 1959–60 | 238, 812, 000 | 45, 313, 000 | 82, 466, 000 | 111, 033, 000 |
| 1961–62 | 283, 948, 000 | 51, 438, 000 | 104, 264, 000 | 128, 246, 000 |

NOTE.—Because of rounding, detail may not add to totals.

SOURCE: U.S. Department of Health, Education, and Welfare, Office of Education, *Digest of Annual Reports of State Boards for Vocational Education.*

### Table 15.—Students from abroad enrolled in institutions of higher education in the United States: 1957–58 and 1962–63

| Major field of interest and year | World total | Far East | Near East | Europe | Latin [1] America | North [2] America | Africa | Oceania | U.S.S.R. | State-less |
|---|---|---|---|---|---|---|---|---|---|---|
| **Total: 1957–58** | **43,391** | **14,206** | **5,695** | **6,816** | **9,212** | **5,354** | **1,515** | **495** | **21** | **77** |
| **1962–63** | **64,705** | **23,768** | **8,847** | **7,888** | **11,021** | **7,089** | **4,996** | **948** | **35** | **113** |
| Agriculture: | | | | | | | | | | |
| 1957–58 | 1, 550 | 389 | 267 | 169 | 481 | 112 | 106 | 25 | -------- | 1 |
| 1962–63 | 2, 205 | 610 | 330 | 199 | 564 | 133 | 328 | 36 | 5 | -------- |
| Business administration: | | | | | | | | | | |
| 1957–58 | 3, 520 | 1, 191 | 358 | 488 | 845 | 513 | 88 | 34 | -------- | 3 |
| 1962–63 | 5, 597 | 2, 049 | 617 | 641 | 1, 059 | 750 | 376 | 98 | -------- | 7 |
| Education: | | | | | | | | | | |
| 1957–58 | 1, 956 | 770 | 204 | 194 | 329 | 323 | 114 | 21 | -------- | 1 |
| 1962–63 | 3, 307 | 987 | 442 | 248 | 494 | 740 | 303 | 91 | 1 | 1 |
| Engineering: | | | | | | | | | | |
| 1957–58 | 10, 111 | 2, 946 | 2, 088 | 1, 306 | 2, 505 | 958 | 227 | 46 | 3 | 32 |
| 1962–63 | 14, 257 | 5, 496 | 3, 088 | 1, 399 | 2, 654 | 851 | 669 | 54 | 8 | 38 |
| Humanities: | | | | | | | | | | |
| 1957–58 | 9, 052 | 2, 386 | 697 | 1, 863 | 2, 330 | 1, 377 | 237 | 136 | 9 | 17 |
| 1962–63 | 11, 998 | 3, 807 | 1, 112 | 2, 139 | 2, 193 | 1, 778 | 679 | 257 | 4 | 29 |
| Medical science: | | | | | | | | | | |
| 1957–58 | 3, 652 | 1, 082 | 441 | 565 | 713 | 612 | 157 | 77 | -------- | 5 |
| 1962–63 | 4, 766 | 1, 654 | 514 | 541 | 895 | 593 | 467 | 97 | 1 | 4 |
| Physical and natural science: | | | | | | | | | | |
| 1957–58 | 5, 895 | 2, 336 | 674 | 968 | 827 | 779 | 213 | 78 | -------- | 10 |
| 1962–63 | 11, 152 | 5, 250 | 1, 294 | 1, 264 | 1, 271 | 999 | 865 | 177 | 12 | 20 |
| Social science: | | | | | | | | | | |
| 1957–58 | 6, 134 | 2, 601 | 746 | 1, 041 | 780 | 576 | 314 | 66 | 3 | 7 |
| 1962–63 | 9, 647 | 3, 350 | 1, 190 | 1, 283 | 1, 421 | 1, 082 | 1, 194 | 111 | 4 | 12 |
| All other fields: | | | | | | | | | | |
| 1957–58 | 605 | 124 | 40 | 49 | 299 | 69 | 19 | 5 | -------- | -------- |
| 1962–63 | 733 | 220 | 75 | 49 | 256 | 81 | 41 | 9 | -------- | 2 |
| No information: | | | | | | | | | | |
| 1957–58 | 916 | 381 | 180 | 173 | 103 | 35 | 30 | 7 | 6 | 1 |
| 1962–63 | 1, 043 | 345 | 185 | 125 | 214 | 82 | 74 | 18 | -------- | -------- |

[1] South America, Mexico, Central America, and Caribbean areas. [2] Bermuda and Canada only.

SOURCE: Institute of International Education. *Open Doors*, 1958 and 1963.

**Table 16.—Number of participants in international education programs administered by the U.S. Office of Education, 1953–54, 1958–59, and 1963–64**

| Program | Number of participants | | |
|---|---|---|---|
| | 1953–54 | 1958–59 | 1963–64 |
| Teacher development | 398 | 419 | 726 |
| Teacher interchange | 300 | 292 | 278 |
| U.S. teachers to foreign countries | 84 | 119 | 142 |
| Foreign teachers to United States | 8 | 20 | 79 |
| Seminars for teachers | 37 | 137 | 225 |
| Technical assistance in education | 428 | 647 | [1] 850 |

[1] Estimated.

SOURCE: U.S. Department of Health, Education, and Welfare, Office of Education, Bureau of International Education.

# Part II. Teacher Education in the U.S.A.

THE EDUCATION OF TEACHERS in the United States reflects values that are fundamental to its way of life. Teacher education developed rather naturally as an essential function in the complex pattern of free public education. It emerged among the common people, and it serves common goals. The education of teachers developed much as the United States, itself, developed—by encouraging initiative, exchanging information and ideas, and retaining the responsibilities and controls of public enterprise as close to the local level as possible. The outcome may be assessed quickly from an introductory description of the scope and pattern of teacher education today.

## Overview

All teacher education in the United States takes place at the university level. Completion of secondary school is prerequisite and has been so for two generations. Seen in perspective, the education of teachers is a major activity. More than one-third of the students graduating from the colleges and universities each year have been prepared for teaching and are eligible for standard teacher certificates in their respective States. This number approximates 175,000 for the academic year ending in June 1964. In addition, teachers are currently earning 38,000 master's degrees and 2,000 doctor's degrees in education, and many other teachers are also completing advanced programs in their subject-matter areas.

### Professional and Liberal Arts Preparation

Students preparing to teach in elementary school devote one-fourth of their study to professional subjects and three-fourths to arts and sciences. Those preparing for secondary school teaching devote one-sixth of their program to professional education and the rest to arts and sciences, emphasizing the one or two subjects which they plan to teach.

### Number and Kinds of Institutions

More than 1,200 institutions of higher education have indicated to the U.S. Office of Education this year that they engage in teacher preparation. A total of 99 were reported as single-purpose teachers colleges, 160 as university schools of education, and 985 as comprehensive colleges and universities offering programs in teacher education. More than two-thirds of all new teachers are produced by fewer than one-third of the institutions, chiefly the schools of education in the universities, the major teachers colleges, and the larger education departments of the comprehensive colleges. Single-purpose teachers colleges are rapidly expanding their programs to become comprehensive colleges as the enrollments in higher education grow. More than 65 percent of the teacher-preparing institutions are privately controlled, but the majority of the teachers are educated in the publicly controlled institutions.

### Control

In the United States no single agency, either public or private, assumes supervision or control of teacher education. States exercise varying degrees of control, but institutions have considerable autonomy. A device known as "accreditation" has developed, by which legal and professional agencies have established criteria and evaluate the quality of college programs.

### Accreditation

A total of 1,165 teacher-preparing institutions are currently accredited or approved by the education agencies of their respective State governments. Of these institutions, 409 are accredited by the National Council for Accreditation of Teacher Education, a voluntary professional body representing professional associations with major concerns in teacher education. It is not part of any governmental agency. Its accreditation, however, is the basis of most reciprocal agreements by which State certification officers issue teacher certificates to teachers educated in other States.

## Basic Values and Responsibilities

The pattern of teacher education is complex. Varied responsibilities of professional groups are all outgrowths and applications of basic policies and principles. These in turn have been refined from the concerns of a pioneering people. The actual program of teacher education is therefore to be understood in the light of these fundamentals.

## Principles and Common Concerns

The people of the United States have long been dedicated to the principle that a *well-educated citizenry is essential to freedom and human welfare*. This is the first principle. Its application has resulted in almost universal popular schooling and in the large numbers who go on to higher education. Over 96 percent of the population age 6 through 17 attends school, and over 90 percent of the population age 14 through 17 is enrolled in secondary school. More that 71 percent of this latter group graduate, and at least half of these graduates enter college. Including adults engaged in continuing education, more than one-fourth of all the people of the United States, it is estimated, were enrolled in educational programs during the 1963–64 school year. This proportion increases as efforts continue to apply the principle of a well-educated citizenry.

The second principle is related to the first: *the right to educational opportunity is equal for all citizens*. The United States has grown considerably over the years in its ability to apply this principle. Although it has not yet reached full achievement, the great extent of its application is shown both in the large numbers finishing secondary school and going on to college, and in State and Federal programs to provide scholarships and fellowships.

The third principle extends from the first two and applies specifically to how people are taught. It is the principle of *recognizing individual differences and making provision for each pupil to develop his individual capacities for the greatest benefit to himself and to society*. Although the application of this principle has not been fully achieved in general education or in the education of teachers, it is receiving increasing emphasis.

These three principles involve fundamental values. They are not limited just to education. They affect many other aspects of life in the United States as well. Still, they are chiefly identified with education and therefore with teacher education.

Two additional principles are somewhat different. Actually, these infuse all of the American way of life. In a sense they are applied to education as intentional and deliberate policies.

The first of these additional principles is *freedom of communication*. In education, freedom of speech and freedom of the press mean the unrestricted access to knowledge, which is especially important in the dissemination of research. It is even more important in the exchange of points of view. It applies to the interpretation of information at professional meetings and through professional journals and yearbooks. There is wide circulation of educational materials. Everything can be examined by those who are interested. Weaknesses are criticized. Many are corrected. Strengths are approved, adapted, and imitated. One reason why the decentralized pattern of education in the United States is so effective, despite its complexity, is that information is communicated so freely and decisions can be based on adequate and unbiased data.

The second of the additional applied principles is that of the *decentralized control of education.* Like freedom of communication, this principle has served to implement the three basic principles: an educated citizenry, equality of opportunity, and respect for the individual.

The decentralized control of the actual facilities and processes of education evolved from the same basic human concerns that brought the United States into being. The framers of the Constitution in 1787 did not delegate control of education to the Central Government. Rather, since they did not so delegate this control and did not prohibit it to the States, it became a matter for the States. The States' right to control education stems from the 10th amendment to the Constitution, which reads as follows:

> The powers not delegated to the United States by the Constitution, nor prohibited by it to the States, are reserved to the States respectively, or to the people.

Although the individual States, through their legislative actions, bear the legal responsibility for the education of their citizens, wherever possible they have delegated responsibility for public education to local boards of education. In most localities these are elected by the people; in a few they are appointed by the local government. The States, moreover, have granted almost complete freedom to private schools and colleges. The principle of decentralized control has proved very practical and sound.

These five principles have emerged from the common concerns of the people. They appear and reappear as decisions are made affecting the education of teachers. Consequently, they form the basis for establishing effective working relationships among the many special and genuine interests that are involved.

## Diversified Responsibilities and Relationships

The basic values and the complex nature of education in the United States are reflected very practically in the actual programs of teacher education. This is not merely a matter of decentralized control, however. It is a matter of the effective participation of the various groups and individuals who have major concerns and responsibilities affecting the education of teachers.

In general terms, this might be described as the partial overlapping of the areas of interest of four major groups or agencies. These four

Shared ideas improve standards.

include: (1) the universities and colleges that educate teachers, (2) the school districts that employ them, (3) the governmental agencies that share in support and provide what regulation is essential to the common interest, and (4) the professional associations that are primarily involved in developing and maintaining high standards of quality throughout the profession. The extent and nature of their cooperation depends on many aspects of interdependence which merit brief explanation.

*Involvement of the Federal Government.*—In comparison with the responsibility for education carried by the States and the local school districts, the Federal Government's involvement in education is relatively small. The total Federal support to education, as indicated in part I of the present report, was almost $2 billion. For public elementary and secondary education, the Federal financial share represents less than 5 percent. For teacher education, the percent is much smaller. Nevertheless, in the use of those funds, Federal agencies do engage in providing basic information on a nationwide basis. They provide consultative services. They provide financial support for special research projects; fellowships to graduate students; and institutes and special programs in such areas as mathematics, the sciences, modern foreign languages, and services in counseling and guidance. This Federal function has been characterized as leadership without domination and assistance without interference. In consequence, the major responsibility is that of the people.

*Instruction of Teachers.*—Primarily the responsibility of the universities and colleges, the instruction of teachers engages others also. Many school districts provide workshops, institutes, and formal courses for the continuing professional growth of teachers. Some programs are developed entirely by the local school district. Others are developed cooperatively with colleges and are taught by regular college staff members, and they frequently carry credit toward advanced degrees. Professional associations often develop special workshops and courses in their areas of special interest, occasionally with college credit. State departments of education and occasionally Federal agencies do the same. This whole cooperative effort does not interfere with the regular programs of the colleges and universities nor with their independence. It does serve, though, to provide instruction in new developments and in special problems that have not yet been incorporated into the formal college and university programs.

*Raising and Maintaining Standards.*—Institutions themselves and staff members of institutions have their own authority, also. Through their professional associations they engage in the raising and maintaining of standards. Since many people move from place to place, common standards facilitate the transfer of a student's credits from one college to another. The development and maintenance of such standards operates through the professional associations that accredit colleges and programs. The team members who actually visit institutions to be accredited in the light of published standards are staff members of *other* universities and colleges. The authority of the institutions and professional associations is basically an authority earned by professional competence and integrity.

The involved relationship of groups that carry overlapping responsibilities does raise the question of authority. In very broad terms the legal agencies of the States do establish and enforce minimum standards for the certification of teachers. By implication or by legislative statute, State education personnel have authority to visit colleges and approve programs. This authority is not a matter of difficulty to the colleges, however. Most institutions that educate teachers set standards for themselves that exceed the requirements established by the State. The State's responsibility is to enforce regulations to protect the total citizenry from possible inadequacy or malpractice. Professional integrity puts qualified institutions of teacher education far above such a possibility.

State accreditation of programs forms the basis for certifying teachers. Accreditation by professional associations facilitates the transfer of certification credits between States. Cooperation and the sharing of authority supports continuing improvement and greater quality.

Possibly the greatest force supporting cooperative activities among the special interests involved with teacher education is a common striving for higher quality. Such a striving is not the province of only one group. Instructors are concerned about the quality of their courses and the work of their students. Institutions are broadly involved. Employing officers in local school districts share the concern and work for the continual raising of standards. State departments of education include among their functions efforts to improve quality, and persons employed in all of these areas are active in the conferences, special projects, and publication programs of the professional associations of which they are members.

*Differences in Teacher Education.*—The many special interests involved with teacher education, as described above, may at first examination seem to contribute to great differences. In fact, when studying teacher education in the United States, visitors from other countries are frequently impressed at first by differences which they observe as they travel about. As they see more, however, and develop greater insight, they discover that the similarities are much greater than the differences. They discover that apparent differences are frequently local adaptations that make common elements suitable to the unique demands of different parts of a very large land and an extensive educational program.

Both differences and similarities do exist. This is a dynamic factor. Because there are similarities, there can be communication. Because there are differences, there is something to communicate. Because there is freedom, extensive and effective communication is possible Thus, by using what they share, people and groups exchange what they have come to understand separately. This leads to mutual enrichment. In this way dynamic interchange uses both diversity and unity to promote progress.

The diversity of responsibilities with its interlocking of relationships actually does make the education of teachers in the United States a complex matter. This situation leads to some duplication. It leads to some actual issues. More importantly, it permits the direct participation of 2¼ million educators. It enables all who wish to do so to employ their major competencies, follow their strongest interests, and share their problems and their enthusiasms. Because there is freedom of communication and freedom for affiliation the decentralization of control actually becomes the cooperative and dynamic search for improvement.

In brief, then, three major types of agencies are chiefly involved in the education of teachers. These agencies are the higher education institutions that actually offer the programs, the departments of education in the 50 States that assure the supply and certify the teachers, and the voluntary professional associations that share with the States the responsibility for the establishment of standards and the actual accreditation of the institutional programs.

The growing significance of these relationships is reflected in the two main sections following, "Historical Developments" and "Patterns of Organization and Control." The interpretation just completed is intended to clarify the close identification of shared responsibilities with basic principles and common concerns. This identification helps to explain the point of view underlying teacher education here in the United States.

## Historical Developments

Certain major developments in teacher education in the United States over the last century and a half serve both to illuminate the basic concepts of this education and to put current consideration of it into a meaningful perspective.

The early normal schools, which frequently were little more than secondary schools, gradually became true institutions of higher education. By the end of the 19th century a large number of these schools had raised their standards to the college level. During the first three decades of the 20th century, this action resulted in the schools' providing 4 years of higher education and awarding the baccalaureate degree. One after another, normal schools became teachers colleges. As these teachers colleges added other programs besides teacher education, most of them became comprehensive colleges and many became universities.

For almost a hundred years teacher education was chiefly the responsibility of the public normal schools. Developing *in addition to* the liberal arts colleges and the universities, these normal schools were outside the mainstream of higher education. Gradually, however, the two streams came together. Today, colleges and universities that developed from normal schools are respected along with colleges and universities that developed from the liberal arts tradition. Moreover, those in the latter group have been accepting more extensive responsibilities for educating teachers than they did in the past. The basic teacher-education work of all institutions, whatever their emphasis, is on a comparable level. Thus, students may transfer credits readily from one type of higher education institution to another.

## Background and Early Developments

During the time of the American Colonies and on into the early years of the young Nation, there was no formal teacher education. Schools were limited largely to simple reading, writing, and arithmetic. Most of them were taught by persons with little education and a few by those with considerable education. Private academies were developed to offer education on the secondary level. The few colleges that existed were concerned chiefly with educating students for the ministry.

Early in the 1800's attempts were made to train teachers at various academies. Beginning in 1823, a New England clergyman operated a series of private normal schools. These normal schools provided a model school in connection with a 3-year program that included the common branches of learning and the art of teaching. Other private normal schools followed over a period of several generations.

During the same period some colleges became interested in teacher preparation. A few acted. In 1831 a Pennsylvania college established a professorship of education. A year later a university in New York established a chair of the philosophy of education. One college in 1838 built a model school. Over the years others started normal departments with varying success, but frequently with little esteem within the college.

In contrast, publicly supported ventures emerged at about the same time and gradually took permanent form. New York in 1834 passed the first law to provide for the education of teachers for the common schools. Massachusetts, however, was first to provide State support. On July 3, 1839, in Lexington, it opened the first State normal school, which continues today as the State College at Framingham.

## Free Public Education and the Normal Schools

During the first half of the 19th century, population was increasing and the Nation was expanding westward. The predominantly rural citizenry provided free public schools, but kept as much control as possible at the local level, even while State support and State control of education were growing.

In teacher education itself, by midcentury the academies gave way to the normal schools. Although private normal schools appeared, although normal departments were formed in some colleges, and although teacher-training classes developed in some cities, the public State normal schools were the great educational invention of the midcentury period.

Beginning in 1839 when the first public normal school was established, 15 such schools appeared in 15 years, extending from Massachusetts to California. All 15 continue today under expanded responsibilities: 3 are now universities, 1 is a college of education within a State university, 9 are comprehensive colleges, and the remaining 2 are teachers colleges. Of the 15, 12 now offer advanced programs leading to the master's degree; and 1 of the 12, programs leading to the doctor's degree as well. The first of the normal schools to become a 4-year college did so in 1897, the last in 1946. The first of them to become a comprehensive college did so in 1935, and the first to become a university did so in 1959.

Over the years the normal schools made major contributions to education in the United States and to the way of life as well. Both the success of the common schools and the achievements of their graduates may be credited in large part to the normal schools. One of their outsanding contributions was the development of a curriculum that combined study of classroom theory with practical experience. This pattern has come to characterize teacher education in practically all parts of the country.

The early normal schools typically consisted of a single building including offices, classrooms, a library, and a model school. Admission requirements were usually examinations in elementary school subjects. The minimum age was 16 or 17. The curriculum could be described in two or three pages. It offered the liberal-arts subjects of the day. In professional education, it included such courses as the art of teaching, methods in various subjects, history and philosophy of education, and practice teaching. Except for additional emphasis in psychology and sociology, these areas in more refined form constitute the professional curriculum today.

During the latter half of the 19th century, school enrollments increased rapidly, and the need for teachers was met by the creation of more State normal schools. Psychology appeared in the curriculum. Courses in the art and theory of teaching were modified to adapt them to more modern academic subjects. Practical work grew in emphasis. Departments of pedagogy were created in several colleges. These tended to emphasize theoretical programs with little or no practical experience provided. Experimentation spread, summer schools for teachers developed, and colleges began to offer extension courses away from the home campus. The teacher-education movement showed great vitality.

## Higher Standards and the Teachers Colleges

The real growth, of both common schools and teacher education, has come during the present century. Although the number of elementary school pupils doubled during the 40 years following 1890, the number of secondary school pupils increased 20 times. Colleges developed [illegible] departments of pedagogy into schools of education, chiefly to meet [illegible] demand for secondary school teachers; normal schools upgraded and extended their programs, and one after another became teachers colleges.

Many new private institutions were set up quickly to help meet the demand for teachers occasioned by rising enrollments. These new private institutions usually lasted only a short time, however, and additional publicly supported institutions were established. Private normal schools reached their peak number, 148, in 1900, but declined to 47 by 1915. Public normal schools reached their peak number, 232, in 1915. By this same year there were 50 university schools of education. The number of 4-year teachers colleges in 1915 is not available, but 5 years later in 1920 there were 46.

By 1930 the entire pattern had changed. There were 140 teachers colleges, 109 university schools of education, and 191 public normal schools. Including liberal arts colleges offering small programs of teacher education, there were 834 institutions of higher education engaged in the education of teachers. Today, there are 99 single-purpose teachers colleges, 160 university schools of education, and 985

In the demonstration school: An aspect of the teacher's required preservice experience.

liberal arts or comprehensive colleges. There are no normal schools as such, but 31 of the teachers colleges have 2- or 3-year programs and do not offer degrees; and 131 of the liberal arts colleges are junior colleges offering only the first 2 years of a program that has to be completed elsewhere.

As schools and colleges so engaged increased in number, they also increased in enrollment and facilities. The model school or laboratory school grew in importance as a resource for demonstration, observation, and research. Its function of providing situations for practice teaching gradually shifted to the public schools, which offered a more realistic situation.

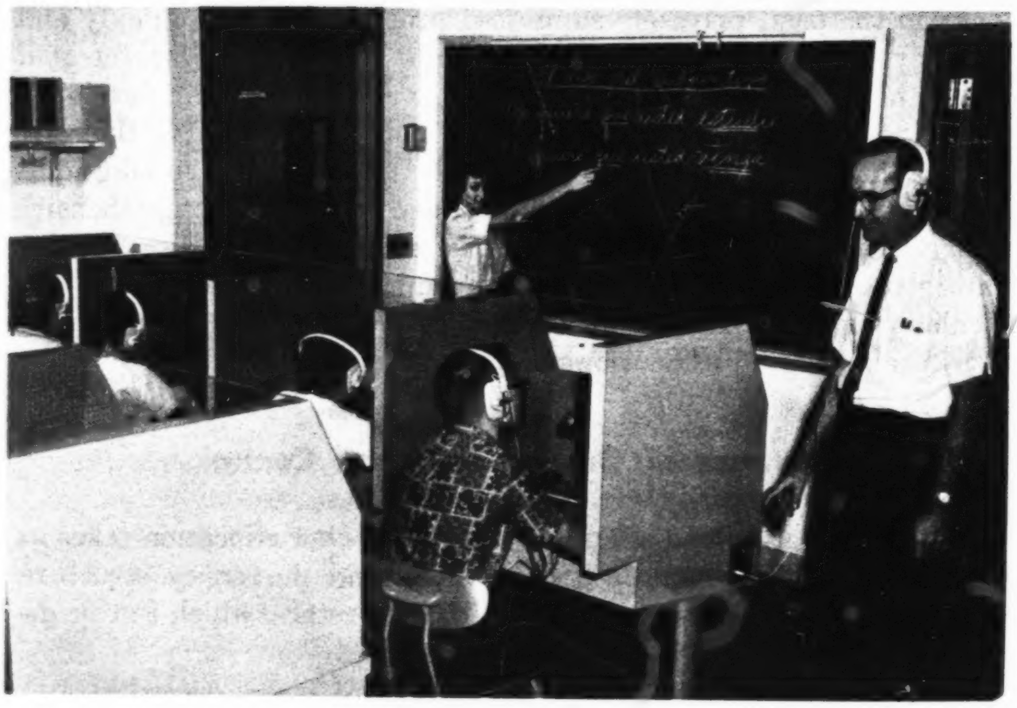
In the development of the teacher education curriculum during this period, the emphasis on psychology grew. Moreover, increasing attention was paid to the student as a person. Educational measurement and educational guidance came into prominence early in the 1900's and have become growing influences in teacher education ever since. Greater emphasis on sociological concepts and understandings also grew, and new knowledge, accumulating from research, began affecting both theory and practice in teacher education.

As normal schools became colleges their greatest problem was to obtain effective faculty. As recently as 1905 most normal school faculty members had no college degrees. By 1930 the master's degree had become the common requirement and the doctorate was much in demand. This placed a heavy burden on the universities, in both general graduate programs and programs of advanced study in teacher education.

During the same period, professional associations for teachers developed rapidly at all levels, in all subjects, and for various special interests. State departments of education also became stronger. The issuance of certificates to teachers as an indication of competent initial preparation became firmly established as a responsibility of the State in assuring the people of suitably educated teachers. Standards of admission to the teaching profession became more specific and began to require greater and greater competence.

### Newer Needs and the Comprehensive Colleges

The present period is one of even sharper challenge and faster change in teacher education. Today's heavy increase in enrollments is at the college level. The junior college particularly is expanding. In many States it is a part of the regular school system and requires certification for its faculty. The explosion of knowledge is requiring the teacher to be even better educated. New techniques and new media are requiring teacher competence in even greater scope.



New media strengthen language instruction.

A demonstration class is televised.

As in the past, privately supported programs emerge quickly and publicly supported programs succeed them. Just as the States created public normal schools six generations ago and just as they developed them into teachers colleges two generations ago, so today they are asking the same institutions to double or triple in size, to add additional liberal and technical programs, and to become comprehensive colleges—retaining at the same time the major responsibility for educating the Nation's teachers. The organizational patterns and curricular programs to meet these challenges are the direct outgrowth of more than a century of development in teacher education.

## Patterns of Organization and Control

The organization and administration of teacher education takes its overall character generally from college and university structure. There are, however, three major modifying factors, which can be described as follows:

1. The task is large, for the education of teachers includes almost as many people as education for all other professions combined.
2. States actually operate extensive teacher-education institutions in order to provide an adequate supply of competent teachers.
3. The participation of the organized profession involves not only the substance of professional concern but also the actual process of education itself, i.e., institutional patterns for the organization and control of teacher education include the legal State agencies and also, in a very real way, the voluntary professional organizations.

### Institutions

Universities, colleges, and other institutions for education beyond the secondary school secure their charters from the State. In chartering the institution, the appropriate State agency usually acknowledges the chosen central purpose of the institution, recognizes its governing board, and authorizes it to grant academic degrees. Within this broad authority, the institution has almost complete legal freedom in educational matters. As a result, the variety of types of institutions, their pattern of control, and their special characteristics evolve from the concerns of those who secured the charter.

Three general types of higher education institutions engage in the education of teachers. These are teachers colleges, universities, and liberal arts or comprehensive colleges.

*Teachers Colleges.*—Because of continuing growth and change on the part of teachers colleges, the term actually has varying meanings in the United States. Only 66 institutions use some words such as *education*, *normal*, or *teacher* in the name of the whole institution. Almost one-third of these 66, however, also offer liberal arts or technical programs, although they are primarily teacher-preparatory and call themselves teachers colleges.

Strictly speaking, the teachers colleges are the single-purpose, teacher-preparing institutions. Most of them evolved from State normal schools. As indicated previously, 31 of these are 2- or 3-year teachers colleges that do not award the baccalaureate degree. Actually, 22 of the 31 are county colleges in a State that does not yet require a college degree for elementary school teachers. There are also 68 teachers colleges which do award degrees, making a total of 99. Although many of these do not call themselves teachers colleges, they have chosen to identify themselves to the U.S. Office of Education as being "primarily teacher-preparatory." Administratively, the head of teacher education in most such colleges is himself the president of the college.

From a *functional* point of view, however, there are also 118 institutions which identify themselves as "liberal arts and teacher-preparatory," but which in fact are primarily teachers colleges. They are really this type of college because they award more education degrees than they do all other degrees combined. After having served for many years as single-purpose teachers colleges, they were authorized recently by their States to add other programs and to grant degrees other than the education degree.

The head of teacher education in such colleges may be the president, the dean, or a major division head, depending on the actual program emphasis.

As these colleges develop and actually graduate most of their students in fields other than education, they become liberal arts or comprehensive colleges. Twelve former teachers colleges changed emphasis last year, with the majority of their graduates being in fields other than teacher education. This change left the 118 colleges indicated above as actually being primarily teacher-preparatory despite their general designation.

Consequently, for practical statistical purposes, despite the chosen identification reported by the institutions, the U.S. Office of Education combines these 2 groups of degree-granting institutions, the 68 teachers colleges and the 118 others, and classifies the total as 186 degree-granting teachers colleges. For complete accuracy, even this classification should be larger because there are several institutions from which students graduate as fully qualified teachers with degrees in liberal arts. Since statistics on these particular institutions are not readily available, however, the U.S. Office of Education keeps the total at 186.

These 186 teachers colleges, the majority of whose graduates receive baccalaureate degrees in education, produce approximately one-third of the Nation's new teachers each year. They produce just about one-third of the elementary school teachers, and, strange as it may seem, they actually produce more than one-third of the secondary school teachers and more than one-third of the men who become teachers.

Most of the 186 institutions are very substantial ones. Typically, they have evolved from the State normal schools. Some in less populous areas enroll fewer than 500 students, but many others enroll more than 1,500 each, and still others well over 3,000 each. They have developed very adequate programs and specializations. Many provide advanced programs and award the master's degree. A few award the doctorate. Most are publicly supported institutions. Most will doubtless expand their programs to become comprehensive colleges, with teacher education remaining the largest program.

These teachers colleges have the advantage of providing a climate with major emphasis on teaching as a career. They tend to have a closer relationship to the public schools than many universities do and frequently they emphasize the practical initial preparation for teaching more than do the multipurpose institutions. They lack the breadth and resources of universities; but for students committed to teaching, they provide a sound singleness of focus and an adequate general, substantive, and professional education.

*Universities.*—Like the term *teachers college*, the term *university* embodies varying concepts. The large university, whether public or private, is of course a comprehensive institution usually comprising 10 or 12 or more separate schools or colleges, several of which offer the doctorate or share in the graduate school's doctorate program. The small university is comprised of just a few separate schools or colleges.

In identifying universities engaged in teacher education, the most functional classification is that of universities with separately organized schools or colleges of education. The head of teacher education in such institutions is usually the dean of the school or college of education. This year there are 160 such major university schools or colleges of education. Practically all include considerable opportunity for graduate study.

Separately organized university *schools* of education generally are those whose faculty is authorized within the university to operate programs in teacher education and to recommend the awarding of degrees in education. In some universities, where control of the teacher-education program and recommendation for degrees in education rests with a comprehensive faculty, and in colleges, the *schools* of education are differentiated from the *departments* of education.

Many universities have, in addition to the specific school of *education*, other separately organized schools which bear responsibility for certain specialized areas of teacher education. These areas include agricultural education, home economics education, physical education, and others. The separately organized schools usually conduct their teacher-education courses in close working relationship with their subject courses. The school of education handles the general education courses and the courses in the standard academic areas (English, history, languages, mathematics, science, etc.).

In many universities the school of education controls its own doctoral programs; in some it works with the graduate school. Five schools of education are actually designated as graduate schools of education, and two of these five have been so designated very recently. It is probable that many other university schools of education will soon change completely to graduate status.

University schools of education alone produce about one-fourth of the Nation's new teachers each year. Counting the graduates of their schools of education plus their liberal arts graduates who have taken some electives in the schools of education, the universities each year actually produce approximately one-third of the Nation's new teachers. In addition, through their advanced study programs, the universities prepare most of the Nation's guidance counselors, school principals, and school superintendents.

University programs are substantial in both quality and size. They continue the mainstream of the heritage of higher education. Over the years they have expanded their basic programs of elementary and secondary teacher education considerably, but the emphasis they prefer is frequently their graduate study and research. It is this emphasis which tends to attract both students and faculty members. The universities have the advantage of more extensive educational resources and offer opportunities for study in greater depth in most of the fields that a student might choose at either the graduate or the undergraduate level.

*Liberal Arts or Comprehensive Colleges.*—The term includes the small liberal arts colleges with a very small education program (frequently just in secondary school teaching), large colleges, and even some universities. Many of these large institutions have extensive programs in both elementary and secondary education. The term includes also the public teachers colleges that are in transition toward becoming liberal arts or comprehensive colleges because enrollment pressures are requiring them to expand their curriculum offerings and provide higher education for students interested in a field of study other than education.

Administratively, the head of teacher education in the large colleges is usually a division or department head. In small colleges, the few faculty members in education may be part of social science, psychology, or humanities units. The president's and the dean's responsibilities in such a college are more comprehensive.

This year a total of 985 colleges reported themselves as institutions offering general programs which include some teacher education. More accurately, though, the number for statistical comparisons is corrected by subtracting the 118 noted on page 37 under the classification of teachers colleges (i.e., awarding more than half of their degrees in education). In this sense the number of liberal arts colleges engaged in teacher education is 867. Of this number, 131 are junior colleges that do not offer the bachelor's degree and consequently, in most States, actually offer only part of a teacher-education program. The remaining liberal arts colleges of 4 years or more number 736.

This large group of 736 liberal or comprehensive college produces about one-fourth of the Nation's new teachers each year.[1] Within this one-fourth, the women outnumber the men. The number of comprehensive colleges is growing, while the number of single-purpose teachers colleges is decreasing. Eventually, the comprehensive colleges will probably be the major producer of new teachers. Such an outcome is the natural course of the normal school's evolution and the merging of its heritage with that of the liberal arts college. The outcome is a natural one, coming from the demand that the States provide liberal higher education for the increasing number of young people who want to go to college. The States can expand teachers colleges, which have proved themselves over the years, more readily than they can create new general colleges.

Many liberal or comprehensive colleges prefer to remain small, especially those controlled by private corporations and denominational groups. For teacher education as well as for liberal education, they seek to maintain the values of the small, intimate institution. Where this emphasis results in a very small program in education, many graduates go on to complete their preparation in another institution. The moderate-size institutions frequently emphasize the richness of the student's major subject, and their offering in education tends to be a service program for those who want to teach. The large institutions tend to combine the characteristics of the teachers college with some of the depth-and-breadth characteristics of the university.

In terms of control, the 65 percent of the teacher-educating institutions that are private are chiefly liberal arts colleges. Some are controlled by private corporations. Most are responsible to one of the religious denominations. Several of the major universities are privately controlled, as are a few of the teachers colleges.

---

[1] About 5 or 6 percent of new teachers have had less than baccalaureate-degree preparation. These are found in the few States that still do not require the degree for their elementary school teachers.

Among the publicly controlled institutions are the Land-Grant Colleges and Universities, beneficiaries of the major Federal education program a hundred years ago. Also publicly controlled are the State-originated institutions that came out of the transition from normal school, to teachers college, to State college. The final group of publicly controlled institutions is composed of the few remaining county and city teachers colleges. The former are small and will probably disappear. The latter are strong and vigorous, although their focus and outlook in each case is definitely that of the particular city which controls it.

Most teachers in the United States have been educated in coeducational institutions. Four out of five teacher-education institutions are coeducational, and these four tend to be the largest. Fewer than 10 percent of the teachers have been prepared in separate men's or women's colleges.

In light of these explanations, a recapitulation may be made here of the numbers of teacher-education institutions. For the 1963–64 school year, reports to the U.S. Office of Education showed a total of 2,139 accredited institutions of higher education. Of that number, 1,244 are engaged in teacher education, and of these 1,244, 31 are 2- or 3-year teachers colleges and 131 are junior colleges that do not award the baccalaureate degree. The 1,244 include 186 colleges offering programs of 4 or more years and awarding most of their baccalaureate degrees in teacher education. A total of 160 are university schools of education, and the remaining 736 are liberal arts colleges offering programs of 4 years or more.

The actual patterns of control of the many teacher education programs in these numerous and varied institutions are affected still further by faculty members' participation in various professional associations and by the institutions' working relationships with the respective State departments of education.

### Legal State Education Agencies

The independence and integrity of the individual States comprising these United States have long been very important to the people. Such is the case especially in education and teacher education. Nevertheless, the disposition on the part of the legal State education agencies to cooperate with each other and with the educational institutions and professional associations is strong. Actually, despite minor differences, the various State education agencies function along similar lines.

Each State is responsible for assuring its people adequately educated teachers in sufficient numbers to provide all children and youth with the best educational opportunity the people can afford. While the responsibility is actually shared with the colleges and universities, if at any time the number of teachers is inadequate or if the quality is unsatisfactory, the State must act. To the extent that private institutions educate teachers, a State is strengthened. To the extent that professional associations project and achieve higher goals, a whole State benefits. Each State, however, must carry out its legal responsibility to coordinate teacher education within its borders. The responsibility is usually centered in a lay board.

The use of boards of laymen to govern educational systems has been a development unique to the United States. These boards operate for local school systems, State school systems, and higher education institutions. The creation of lay boards, answerable to the people, for tax-supported schools and colleges and for State educational systems was a logical democratic development. Their special characteristics vary somewhat, of course. For example, some lay boards are appointed while others are elected. Control of teacher education—whether in universities, single-purpose teacher-education institutions, or liberal arts colleges—is in general much the same.

Top control is vested by the people of a State in their State legislature. This body is made up of political laymen who, to provide teacher education or other higher education, establish general policy through creating a governing board, prescribe certain powers for this board, and provide basic financing. The governing board is usually made up of laymen who are not involved in the political or governmental organization of the State. These laymen actually set the specific policies for creation and operation of the colleges or the group of colleges that are encompassed within the framework of the financial resources made available by the legislature. The lay board hires the chief administrator, usually a professional educator rather than a layman. Subject to the board's control, this administrator is the one who develops and operates the college.

In small higher education institutions and sometimes in large single-purpose ones, this chief administrator may work very closely with the faculty to develop a curriculum. Usually, however, he is too deeply involved in major operating responsibilities to do so, and hence he relies on the professional competence and integrity of the faculty. Once the decision has been made to develop a particular phase of a program and the faculty has been hired, the faculty enjoys academic freedom and professional responsibility to develop and conduct the program. As programs grow with a growing university, small units tend to become departments, divisions, and even special schools or colleges within the university.

Governing boards of private institutions develop in rather similar fashion. Under State authorization, these boards are created usually by some common-interest group, such as the churches within the area that are members of some particular denomination. Some boards are created by a private corporation. In any case, the board is usually made up of laymen who are generally responsible to the body establishing and financing it.

Over the years governing boards of similar or related systems have tended to cooperate. Frequently, they create coordinating bodies or even merge. Similarly, in many States the lay boards responsible for State teachers colleges have tended to coordinate and in some cases combine with boards for the State university. In 11 of the 50 States some form of coordinating board has unified responsibility for all the publicly supported higher education within the State. In several States there are two major boards. In still other States several boards are responsible for different institutions or different types of institutions. Consistently, however, governing boards made up of laymen have the responsibility for operating the colleges within the State.

The responsibilities of the States in the broad area of teacher education stem from basic State laws. Through constitutional or statutory provisions, all States have direct or implied authority to do the following:

> Operate public institutions for the purpose of educating teachers.
>
> Accredit or approve both private and public institutions or programs for teacher education.
>
> Certify teachers.
>
> Establish the rules, procedural regulations, and means of accomplishing the purposes of the State's authority in the public interest.

Deriving from the people of each State, the authority is most commonly vested in the State department of education, its controlling board, and the chief State school officer.

In some States the legal agency for education is called a department of public instruction instead of a department of education. In all States one or more specialists of the department are designated to carry out teacher-education responsibilities, and in large States an entire departmental staff my devote all of its time to the purpose. The person responsible for the work is most commonly known as director of teacher education and certification.

The extent to which States operate public institutions for the education of teachers varies with the extent of privately supported teacher education within the State and the extent of its need for teachers. The State's action in assuring an adequate supply of appropriately educated teachers for its schools takes several forms:

> The State may encourage private institutions in their development of programs for teacher education.
>
> Sometimes the State requests institutions to develop specific kinds of programs.
>
> It may give financial help to private institutions.
>
> To meet specific preservice or inservice teaching needs, the State may establish workshops or institutes under the direction of the State department of education.
>
> The State may actually operate one or more public institutions to educate teachers. (Most States do so.)

The State's director of teacher education and certification usually works closely with the teacher-education heads in institutions having teacher-education programs. The institution's head, however, is usually responsible to the governing board. In States where a governing board supervises several institutions, there is usually a chief administrator for the board to whom the heads of the institutions report.

Through direct or indirect processes all State departments of education engage in the accrediting of teacher education. The statutes of some States provide specifically for the department to accredit or approve teacher-education programs. In some States the major State university participates indirectly in accreditation through its recognition of the programs and graduates of other institutions within the State. In other States the authority to accredit teacher-education programs is an extension of the authority to issue teaching certificates to the graduates of those programs.

Although professional associations also engage in accreditation, the State department of education carries unique and continuing responsibilities which these associations do not share. The State department of education is characteristically the first authority to visit an institution; examine its plans, provisions, and programs; and make initial accreditation. Other agencies are not involved until a program is in force and its graduates appear. In addition, the State agency can examine a program more frequently and in greater detail than can any other authority. At the same time the State agency can advise in program development. Through its responsibility for certifying teachers, it is in a position to examine transcripts of students' programs and through such records make related estimates of an institution's whole teacher-education program.

Cooperative relationships with educational institutions and organizations involved in accreditation and with voluntary accrediting agencies have existed for years. In 1954, for example, the State departments of education joined with the organized teaching profession, institutions of higher education, and representatives of the lay public in establishing the National Council for Accreditation of Teacher Education. Staff members of the State agency regularly serve on the council's visitation teams.[2] In their own State accrediting functions these staff members frequently utilize or adapt council standards. Furthermore, professional educators who have gained accreditation experience through their association with council activities are frequently asked to serve along with other persons on the State agency's accreditation advisory committee.

The intent of State departments of education in certifying teachers is to assure the citizens of that State that all professional personnel in the public schools have the appropriate level of competence. Whether through prescribed requirements, program accreditation, examination, recognition of satisfactory experience—or some combination of these factors—the ultimate objective is the same. State teacher certification is legal evidence that the possessor of the certificate has satisfactorily completed an appropriate educational program to teach in the schools of the particular State.

Although the certification process was evolved to serve public schools, it has implications for private schools. In many States where public schools are accredited by the State agency, private schools wishing to become accredited by that agency must meet State standards, among them those for teacher certification.

Most States differentiate among certificates for elementary school teaching, secondary school teaching, and teaching in special education areas. A few States, though, issue common certificates for all levels and areas, with a supporting transcript of the teacher's college record substantiating the special study required for teaching at a particular level or in a particular subject area. Again, most States differentiate between standard certificates for beginning teachers and professional certificates for experienced ones. Frequently the latter certificates require additional study as well as satisfactory teaching experience.

All States issue emergency, substandard certificates in fields for which an adequate supply of fully qualified teachers is not available. Records for the year 1954 show that 7 percent of all public school teachers (elementary and secondary combined) in the United States held substandard certificates. For the year 1963 the figure was 5.3 percent. Taken separately, the secondary teachers in each of these years had a lower percent than the composite figure and the elementary teachers a higher percent.

---

[2] For details of the council's membership and work, see p. 53.

Actually, the certification requirements of the States are much more alike than they are different. Some States have special requirements that are of special concern to them. For example, a few require study of the particular State's history. The main differences, however, concern the stage of progress of the particular State in raising basic standards and requirements. All States now require secondary school teachers to be college graduates holding the bachelor's degree. Three States require 5 years of higher education, the equivalent of the master's degree. Five other States require a deferred year of graduate study to be completed within either 5 or 10 years as a basis for permanent or professional certification.

A total of five States still do not require the bachelor's degree for elementary school teachers, although several cities in those States do require it. In 1951 only 17 States required the degree, while today the number is 45. This rapid progress is the culmination of one phase of the long process of raising the standards. Undoubtedly, the time when all States will require the bachelor's degree for elementary school teachers is not far distant.

The power to issue teaching certificates is also the power to revoke them for cause, as for gross inadequacy in the job. Thus, in such a case the public is again protected.

Using lay boards created by their legislatures, States establish educational departments staffed by professional edcators, who discharge responsibilities in the public interest to provide for teacher education, accredit institutions that educate teachers, and issue certificates authorizing graduates of teacher-education programs in these instititions to teach. Much of the actual operation of both the institutions and the State agencies reflects the activities of faculty members and State officials in the various professional associations.

### Professional Associations

Interacting with the roles of educational institutions and State governments in teacher education is the role of the professional associations. This reflects the tendency of people to associate themselves with other people of similar interests to promote their common concerns.

Professional associations involving teacher education exist at all levels. At the local level such associations are usually small organizations with broad interests. Since general education associations are made up of teachers, they tend to emphasize activities concerned with teacher education. At the State and national levels, the associations tend to take on more specialized interests. The present re-

Professional groups seek solutions to problems.

port focuses chiefly on nationwide associations and their influence.

National associations especially concerned with teacher education are of two general types. Some are associations of institutions, while others are associations of individuals. Literally, there are hundreds of both of these types at the national level. Only a few of the major ones will be reported in the present publication.

*National Education Association* (*NEA*).—The largest and most comprehensive education association in the United States, the NEA, has a membership made up of individuals. Most teachers are members and are active in many of its programs and projects. Membership is voluntary, all teachers having the right to belong to it or not, as they wish.

Directly affiliated with the NEA or existing as autonomous departments within it are many specialized national associations. State education associations are independent but cooperate with the NEA through direct working relationships. On the international level, the NEA is the major association in the United States supporting and participating in the World Confederation of Organizations of the Teaching Profession. The teacher-education interests of the NEA are implemented chiefly through several of its national commissions and affiliated departments and associations.

*American Association of Colleges for Teacher Education* (*AACTE*).—An autonomous department of the NEA, the AACTE is a voluntary association of universities and colleges engaged in educating teachers. Its purpose is constantly to improve the quality of teacher education, and its membership includes all types of institutions offering teacher-education programs of 4 or more years. More than half of the institutions that educate teachers in the United States are AACTE members. Since this association includes most of the largest of such institutions, an estimated 90 percent of teachers earn their bachelor's degrees in AACTE member institutions. Also, these institutions account for nearly all the master's and doctor's degrees in teacher education.

Operating with a small professional staff, AACTE carries out most of its program by means of major projects and major committees, using the voluntary services of representatives of its member institutions. Its major committees are those on public relations, international relations, and studies.

Subcommittees of the committee on studies are active in the following seven areas, which reflect the interests of AACTE's member institutions:

Faculty for teacher education
Instructional media
Improvement of instruction
Relationship between schools and colleges
Testing
Teacher education in liberal arts colleges
Teacher education and values.

Some committees (for example, the one on international relations) sponsor special conferences. The international relations committee also sponsors international visits among teacher educators as well as cooperative relationships between colleges in the United States and similar colleges overseas.

AACTE conferences and special meetings provide the association's member institutions with the opportunity, on a voluntary basis, to have representatives from their institutions come together and concentrate professional attention on specific problems of immediate concern. Many visitors from other countries attend these conferences and meetings. The association's annual and other reports and its bulletin are all important publications for the teaching profession.

*Associated Organizations for Teacher Education* (*AOTE*).—Recently developed by the AACTE (which now is a member),[3] the AOTE provides for common exchange of ideas and cooperative efforts among its members. Institutional representatives active in the AACTE tend to be administrative officers and heads of teacher-education programs at their colleges and universities; but the corresponding representatives in the AOTE tend to be faculty who are primarily engaged in specific phases of teacher education. This fact is indicated by the various interest areas of the member organizations of AOTE. Among those areas are the following:

---

[3] A member of AACTE's professional staff is AOTE's executive.

*Subjects*
Audiovisual aids
Business education
Home economics
Philosophy of education
Science teaching
Vocational education.
*Special functions*
College teaching of education
Field services
Placement and staffing
Student teaching.

With financial support from the U.S. Office of Education, the AACTE and the AOTE are currently sponsoring a special cooperative research project on teacher education and new instructional media.

Described below are two AOTE-affiliated organizations which may be of interest overseas. Both operate on very limited resources, relying almost entirely on voluntary services.

*Association for Field Services in Teacher Education* (*AFSTE*).—The members of AFSTE are college and university officers responsible for coordinating off-campus and extension programs. In small institutions these officers are also responsible for correspondence courses, evening and summer programs, and off-campus advisory services. Visitors from overseas have found the study of these activities in small institutions valuable because frequently they are samples of teacher-education activities in large, complex institutions; and the visitors have also found that the activities could be usefully applied in their home countries.

A recent project of the AFSTE was concerned with developing standards for these extended services in teacher education. Directed toward assuring and improving the quality of such services as a valid and respected part of teacher education, this effort was shared cooperatively this year by various teacher-education agencies in a conference sponsored by the U.S. Office of Education. Representatives from professional associations, institutions, city and county school systems, and State departments of education reviewed, critized, and expanded the AFSTE-developed standards, which, after publication, will be widely circulated for use by those interested.

*Association of State Colleges and Universities* (*ASCU*).—Cooperating with the American Association of Colleges for Teacher Education (AACTE), this relatively new institutional association is composed of certain State controlled and supported institutions, mostly former

State teachers colleges. These institutions have special problems arising from the fact of their public status. They must provide not only for the growing teacher demand but also for the sharply increasing college enrollments. It was therefore natural that these tax-supported institutions should form an association to improve plans and provisions for meeting these two demands and to facilitate their working relationships with the Federal Government, which aids them and aids the State governments that support them.

*Association for School, College, and University Staffing (ASCUS)*.—Members of this association are chiefly the institutional officers responsible for placing graduates in professional educational positions, assisting them in their continuing career plans and progress, and assisting the employment officers to assess staff needs and recruit and appoint staff. Recently the association cooperated with the U.S. Office of Education in a study, conference, and publication on placement services in higher education.

Although there are many other associations whose members are institutions that engage in teacher education, the present report cannot comment on or even list all of them. The following list, however, gives a good sampling of their scope:

American Council on Education
Association of American Colleges
Association of State Universities and Land-Grant Colleges
Council for the Advancement of Small Colleges, Inc.
Council of Protestant Colleges and Universities.

*National Commission on Teacher Education and Professional Standards (TEPS)*.[4]—Both a nationwide movement and an actual organization (within the NEA), TEPS sponsors two national organizations, provides the major financial support for another, and directs and encourages State commissions affiliated with it. The Commission as such consists of nine members appointed on overlapping terms by NEA's executive body and representing classroom teaching and supervision as well as teacher education at the institutional level. Consultants to the Commission include representatives of major related associations. A full-time professional staff coordinates and implements the commission's work.

The TEPS movement operates through publications, conferences, and related associations to challenge the conscience, promote the planning, and raise the standards of the entire teaching profession. Its major publication, *Journal of Teacher Education*, is the national professional journal of the entire teacher-education profession. Its

---

[4] In the case of this organization, the popular abbreviated form does not contain all the initial letters of the full word form.

2

*Manual of Certification Requirements for School Personnel in the United States* is the standard reference on certification and related areas.

Annually, TEPS publishes a substantial professional volume on the theme of its national or regional conferences. One such recent national report was *Professional Imperatives: Expertness and Self-Determination.* Approximately 1,800 participants from all levels and interests affecting teacher education attended the organization's latest series of eight regional conferences, whose theme was "The Development of the Career Teacher: Professional Responsibility for Continuing Education."

One TEPS professional staff member works primarily with State TEPS groups. In many States the TEPS movement is given the chief credit for having raised educational standards leading to the requirement that elementary school teachers must have a bachelor's degree. Although a State legislature or governing board makes the actual legal requirement, this action has been preceded by thoughts, attitudes, and action on the part of the teaching profession itself and the public.

In its 19 years of service, the TEPS movement has been a most comprehensive forum in which to give information, express concern, and stimulate positive action to improve teacher education. Throughout the United States, it is the broadest organizational entity in which representatives of associations, institutions, and governmental agencies participate. University students and presidents, local school superintendents and classroom teachers, members and executive officials of associations, State directors of teacher education, and chief State school officers—all cooperate in a common voluntary action to improve teacher education and professional standards. The TEPS movement is a sound demonstration of democracy at work in mutual professional growth and action. And many visitors from overseas participate directly in the movement when their travel plans permit.

Analysis and improvement of teacher education is featured also by certain other components of the National Education Association besides its TEPS unit. These components do this, of course, in terms of their specialized areas, such as classroom teaching (at all levels), educational research, higher education, rural education, supervision, curriculum development, the superintendency, and many subject areas and special services.

Several general units of the NEA likewise relate some of their work to the TEPS organization. Among these units are the following: Educational Policies Commission, National Commission on Professional Rights and Responsibilities, and National Council on Teacher Retirement.

*Future Teachers of America (FTA)*.—Its activities coordinated by a professional staff member of TEPS, the FTA is a secondary school student organization operating mostly at local and State levels. The FTA's State sponsors participate directly in national TEPS functions.

*Student National Education Association (Student NEA)*.—With its activities coordinated by another TEPS professional staff member, the Student NEA is a preprofessional association for college and university students preparing to teach. These students participate directly in the work of local, State, regional, and national education associations. One of the Student NEA's concerns is to help recruit capable young men and women to the teaching profession. Other concerns are to develop an understanding of the history, ethics, policies, and other aspects of education associations and to encourage higher professional standards for both teacher education and teaching.

*National Association of State Directors of Teacher Education and Certification (NASDTEC)*.—A small organization without any paid staff, this association works closely with the National Commission on Teacher Education and Professional Standards. Of course, the deliberations and recommendations of its members, acting together as an association, do not bind these members individually in their regular State assignments. The fact that they share information and views on common problems, though, helps them to interpret the association's recommendations to their own State governing boards and advisory committees.

This association has worked closely with the TEPS organization over the years and shares with it much of the credit for the nationwide raising of standards for teacher certification. The members of the NASDTEC are primarily the ones to be credited with the advances made in reciprocal agreements among States, by which the States recognize each other's standards as a basis for provisional certification of teachers who move from one State to another. The NASDTEC also shares credit with the TEPS organization for the growth of a plan, shared by 29 States, whereby graduates of institutions that hold national accreditation may be awarded basic teaching certificates in any of these 29 States.

The NASDTEC has worked cooperatively with the U.S. Office of Education over the years in developing standards for State approval of teacher education, and together they have recently revised the recommendations which the association originally made a decade ago. These revised recommendations are currently being tried out in an experimental edition.

The NASDTEC has been cooperating also with the American Association for the Advancement of Science (AAAS) in a foundationsponsored study of how mathematics and science teachers are prepared professionally for their jobs. Representatives of several professional mathematics and science associations worked on this study in deliberation and experimentation. As a result of the study, guidelines have recently been published for teacher education in both elementary and secondary school mathematics and science.

The NASDTEC is currently refining plans with professional associations to develop similar guidelines for teacher education in English and modern foreign languages.

A committee, composed of members of the NASDTEC and several associations having related interests, is currently working with the Peace Corps to find out how to facilitate the entrance of former Peace Corps volunteers into teaching after they return home. The committee is also exploring ways in which more experienced teachers than previously can participate in the Peace Corps.

The activities and influence of the NASDTEC make a far greater contribution to teacher education and to the work of its members in their regular jobs than one would expect from this association's informal nature and small size.

*National Council for Accreditation of Teacher Education (NCATE)*.—Composed of official representatives from five national associations that cooperated to establish and maintain it, the NCATE is recognized by the National Commission on Accrediting as the only national accrediting body for *all* aspects of teacher education.

The actual council, or governing body of the NCATE, has 19 members representing various educational organizations, as follows:

| *Number of members* | *Organization represented* |
|---|---|
| 6 | National Commission on Teacher Education and Professional Standards. |
| 7 | American Association of Colleges for Teacher Education. |
| 1 | Council of Chief State School Officers. |
| 1 | National Association of State Directors of Teacher Education and Certification. |
| 1 | National School Boards Association. |
| 3 | (Members at Large.) |

Most of these members, it can be seen, come from institutions engaged in teacher education. The other members, spread throughout the total teaching profession, share the governing council's responsibilities.

The NCATE's standards and guide, used by institutions when getting ready for visitation and appraisal, contain seven major categories, all applying specifically to higher education:

Objectives
Organization and administration
Student personnel programs and services
Faculty for professional education
Curriculums
Professional laboratory experiences in education
Facilities and instructional materials.

The actual process of accrediting an institution is made up of the following steps:

The institution prepares a report based on the NCATE standards and guides.

A team, composed of staff members from other institutions, visits the institution, then writes a report.

The NCATE Committee on Visitation and Appraisal reviews the team's report and then makes recommendations to the council.

The council takes final action.

The NCATE accredits institutions for (1) elementary education, (2) secondary education, (3) education of school service personnel (i.e., principals, superintendents, guidance counselors, curriculum specialists), or (4) any combination from (1), (2), and (3). The accreditation may be for the bachelor's, master's, or doctor's level, as applicable.

According to estimates, the 409 teacher-education institutions which to date have gained NCATE accreditation produce approximately 75 percent of all new teachers earning the bachelor's degree and practically 100 percent of all teachers earning advanced degrees.

In addition to the organizations already identified in the present report as primarily concerned with teacher education, there are many others concerned for the welfare and status of teachers. Some are very general in nature. Some have special committees and projects on some phase of teacher education. Some deal only with their own specialized group interests. A few, such as Kappa Delta Pi for both men and women, and Phi Delta Kappa for men only, are honorary professional fraternities. Others are such as the following:

American Association of University Professors
American Association of University Women
American Chemical Society
American Federation of Teachers
American Personnel & Guidance Association
Association for Childhood Education International
Comparative Education Society
Council for Basic Education, Inc.
National Catholic Educational Association
National Society for the Study of Education.

In this complex pattern of the organization and control of teacher education, democratic cooperation is very important. Ultimately the control rests not with any one body or group. It rests in the quality of the working relationships. Control as such is not so important as professional growth. Continuing professional growth and development are, finally, the personal responsibility of the individual professional person engaged in teacher education.

To facilitate and encourage the individual's professional initiative in continuing his growth, both legal and professional agencies contribute to the providing of adequate resources, programs, and institutions. Continuing education is not, however, something done *to* people. It is something done *by* them. The responsibility, like the control, rests in the quality of the professional relationships. Such is the professional context in which the actual programs of teacher education are provided.

## Programs

Teacher-education programs may readily be considered under four categories: preservice elementary education, preservice secondary education, special education, and advanced study.

Since some references in this section will be made to programs in terms of "semester-hour credits," it is important that this term be understood. The designation of semester-hour credits makes it possible to convert the academic load of various courses and programs to a common base. Even a different system of counting credits for courses (as is the case in some institutions) can be converted into semester hours.

A semester hour represents one class hour per week for one-half of an academic year. Typical courses meet three times a week for a semester (or half-year); hence, they are 3-credit courses. A student who carries five such courses earns 15 semester-hour credits in a half-year, 30 in a year, and 120 by the end of his 4-year college program.

Students sometimes vary the number of courses. Also, some courses (such as physical education or laboratory work) involve less outside study than other courses and hence receive fewer hours of credit. Thus, a science course comprising 3 hours of lecture and 4 hours of laboratory work gives 2 hours of credit for the 4 laboratory hours and is rated as a 5-credit course.

Typically, 4-year college programs require students to carry an average of 16 credits a semester. In some instances, graduation may require a total of 128 semester hours of credit. Many students carry total programs which add up to 140 or 150 semester hours by graduation time.

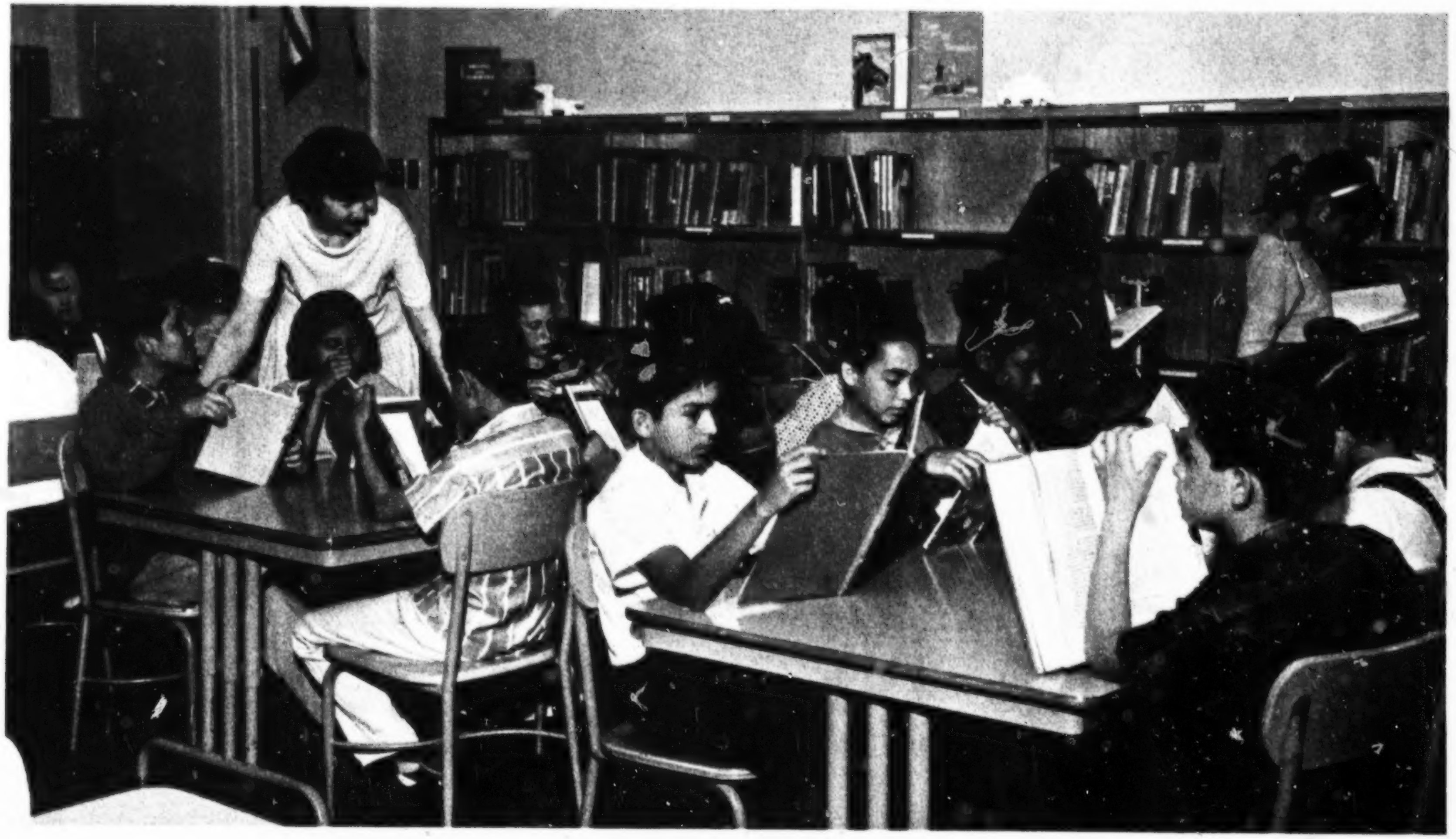
*Preservice Elementary Education.*—In general, three-fourths of the

4-year higher education program for the education of elementary school teachers is devoted to arts and sciences. This is approximately 90 semester hours. It is probable that most students exceed this. The typical program specifies a core of studies in general education to be studied by everyone. The range is very wide, but the typical requirement in general education would be approximately 45 semester hours. Within this requirement, most institutions stipulate specific courses or minimum requirements in specific fields. This tends to provide a common background which is an important part of the college climate in many institutions. It also assures a breadth of study, which many educators believe is better than the single specialization that some college students would like to pursue. In addition, such required general patterns make it impossible for a student to avoid fields that happen to be difficult for him. Typical patterns of general education requirements in colleges that prepare teachers include English, humanities, social science, biological and physical sciences, philosophy, psychology, a foreign language, and physical education.

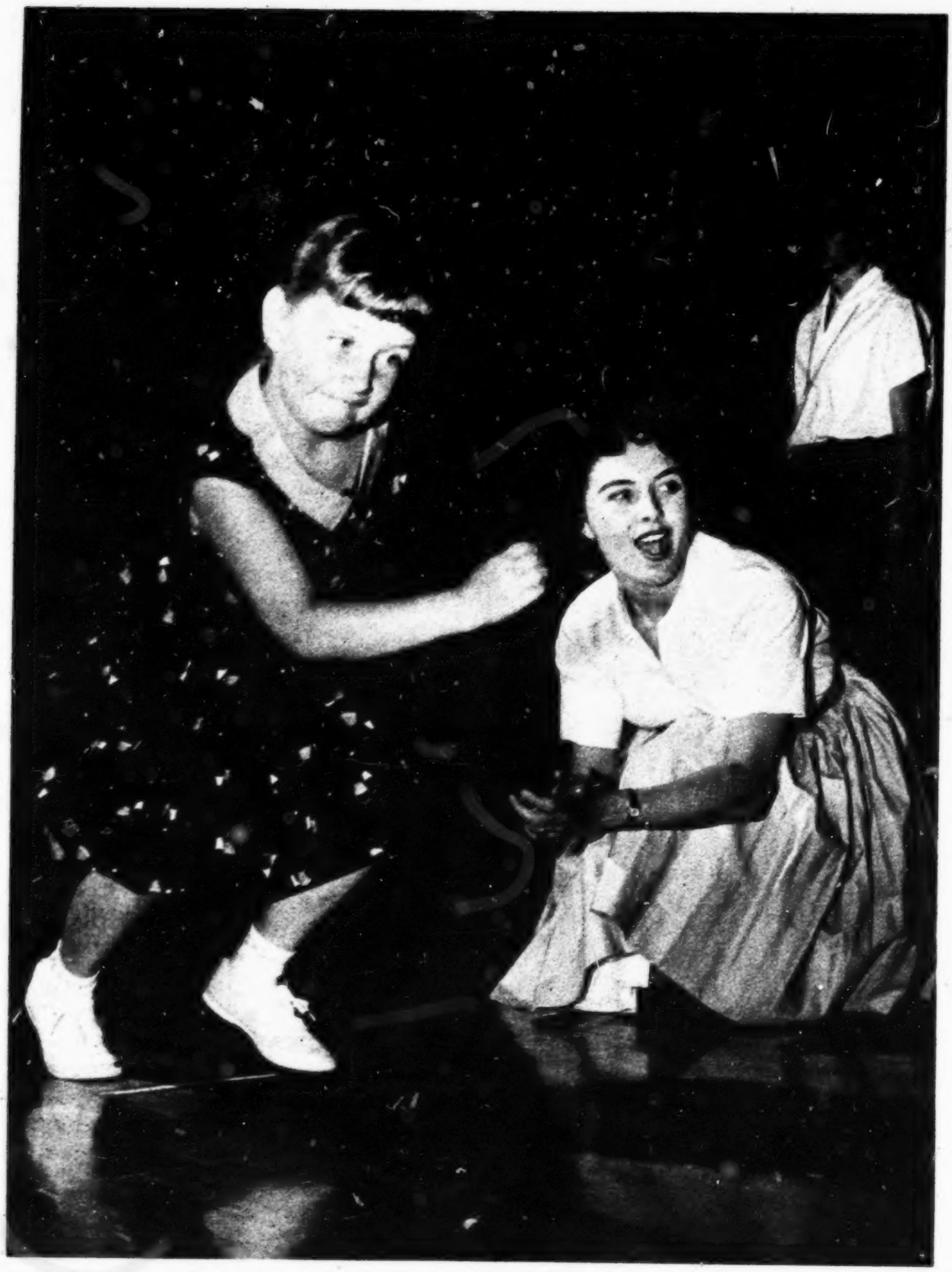
There is some tendency for the general elementary education curriculum to be broader because of the wide range of demands put upon the elementary classroom teacher. The intent of the general offering is both to educate one for purposeful and responsible living as a citizen in a free society and to supply him with a resource for the lively interests reflected in the modern classroom. Some institutions provide for this by prescribing a pattern of additional general education requirements for future elementary school teachers; others, by establishing a system to advise them in their choice of elective courses.

There is also some tendency for colleges to require a field of specialization for elementary school teachers. Some colleges believe that a well-developed field of interest is important even for the teacher of all subjects in the self-contained classroom. Others believe that the upper grades of the elementary school should be departmentalized. A subject concentration supports either view. It does not, however, serve the belief that the teacher needs both variety and depth and that much specialization in one area curtails adequate study in each of the areas needed.

The professional education program for elementary school teachers varies somewhat in emphasis among the three types of colleges. Universities tend to require 30 or 32 semester hours of professional education, which is about the general average. On the other hand, teachers colleges require 4 or 5 semester hours more and liberal arts colleges 2 or 3 fewer. In the process of becoming comprehensive or liberal arts colleges, former teachers colleges usually retain their greater emphasis on professional education.



The new teacher: In the library.



The new teacher: In the gym.

The new teacher: In the classroom.

The new teacher: In the workshop.

There is no typical program. Typical program ranges, however, might include the following:

| *Area* | *Semester hours* |
|---|---|
| Human growth and development and related educational psychology | 4–6 |
| Combined areas of school curriculum and methods and materials in the various subjects areas (language arts and children's literature, speech and communications, art and music, health and physical education, mathematics and sciences, and social studies) | 8–18 |
| History and philosophy of education, educational sociology, guidance and measurements | 2–6 |
| Laboratory experiences and supervised student teaching | 8–12 |

To provide an effective sequence of experience, these courses are spread over several college years.

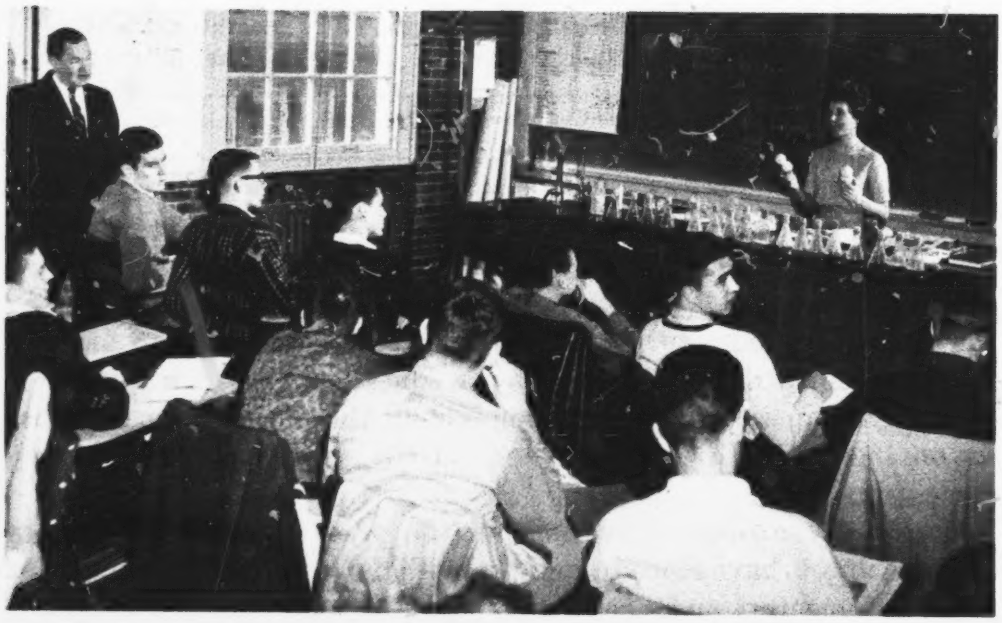
Actually, the concentration of courses in the student's major field builds upon an area included in the general requirement. Many major-field programs range from 24 to 36 credit hours, approximately 30 of them, typically, in academic subjects. In single-emphasis areas, such as a foreign language, the number of hours may be less. Many students majoring in a modern foreign language may meet the reqiurements for a major with as few as 18 credit hours, or 3 years of a language sequence. In broader areas, like the social studies area, the major concentration tends to exceed 30 hours and to include 18 hours in a contributing area, such as history. Certain special fields of secondary education, like agriculture and physical education, usually require programs calling for a very large number of credit hours, thus leaving little time for a student to take elective courses

For secondary school science education, students may take a major in either the biological or the physical sciences. For social studies, they frequently narrow their major to either U.S. history or European and world history; and for commercial and business education, they tend to major in either the accounting area or in the shorthand, typing, office-practice area.

In small secondary schools, teachers are often required to teach a subject outside their major specialization and thus have a minor specialization. In the large secondary schools of large-population areas, however, they are able to specialize, teaching in a single field.

In the area of supervised student teaching, a growing interest is apparent for strengthening the entire clinical experience. Such an emphasis means that before he does any student teaching, the student will have a variety of observation and participation experiences. It means that he will have two student-teaching experiences in two different terms and at two different grade levels. Typically, he will do his student teaching (1) on a full-day basis for 8 or 10 weeks (or for

Practice teaching: Elementary school.



Practice teaching: Secondary school.

two 6-week periods), or (2) on a half-day basis for an entire 15- to 18-week semester. Generally speaking, the first basis is better for all concerned.

At present, student teaching takes place mostly in public schools. In a few special situations it takes place in a campus laboratory school.

*Preservice Secondary Education.*—In general, five-sixths of the program for secondary school teaching is in arts and sciences, including the student's field of concentration (his major); one-sixth is in professional education. The portion in arts and sciences exceeds 100 semester hours.

In most colleges, the general education requirement for secondary education is similar to that for elementary education. Nationwide, this requirement is about 45 semester hours. The secondary education programs, which permit variations, afford greater freedom, however, than do elementary education programs. The former also have a greater tendency to utilize a basic program of general studies in the first 2 years and to start both the major and the professional education programs in the third year.

The professional education portion of the program for secondary school teachers requires 21 to 24 semester hours and usually provides some course options. Teachers colleges tend to require a few more than this number, and liberal arts colleges and universities a few less.

Typical program ranges include the following:

| *Area* | *Semester hours* |
|---|---|
| Principles and methods (usually including both a general methods course as well as a special methods course in the field of concentration) | 4–6 |
| Curriculum, history and philosophy of education, educational sociology, guidance and measurement | 6–9 |
| Supervised student teaching experience | 5–10 |

Student teaching is usually supervised by members of the college's education staff. Occasionally, staff members from the field of concentration participate in the supervision. The same is true concerning the special methods course: sometimes it is taught by a staff member from the subject area, but usually by an education specialist.

Programs in secondary education include those with special emphasis on the junior high school and on the special needs of young adolescents.

*Special Education.*—Programs for the preparation of teachers of special subjects have much in common with those for the preparation of regular elementary and secondary school teachers. General education requirements are the same. In special education, requirements for the area of concentration tend to be greater than for the regular academic subjects. Professional education requirements tend to be greater, and more faculty members from the special area participate in teaching the professional courses and in supervising the student teaching.

In some areas, such as art, music, and physical education, the program prepares students for both elementary and secondary school teaching. The dual preparation requires that the study of psychology and its application in methods and procedures must cover the wide age range and the characteristic differences of both children and youth.

Certain other special areas, like vocational agriculture, distributive education, and vocational education for trade and industry, require practical trade experience as well as academic and professional education. In actual practice, many teachers of these subjects are recruited from the trade; they enter teaching with minimum professional preparation. They then tend to perfect their professional education through evening and summer programs.

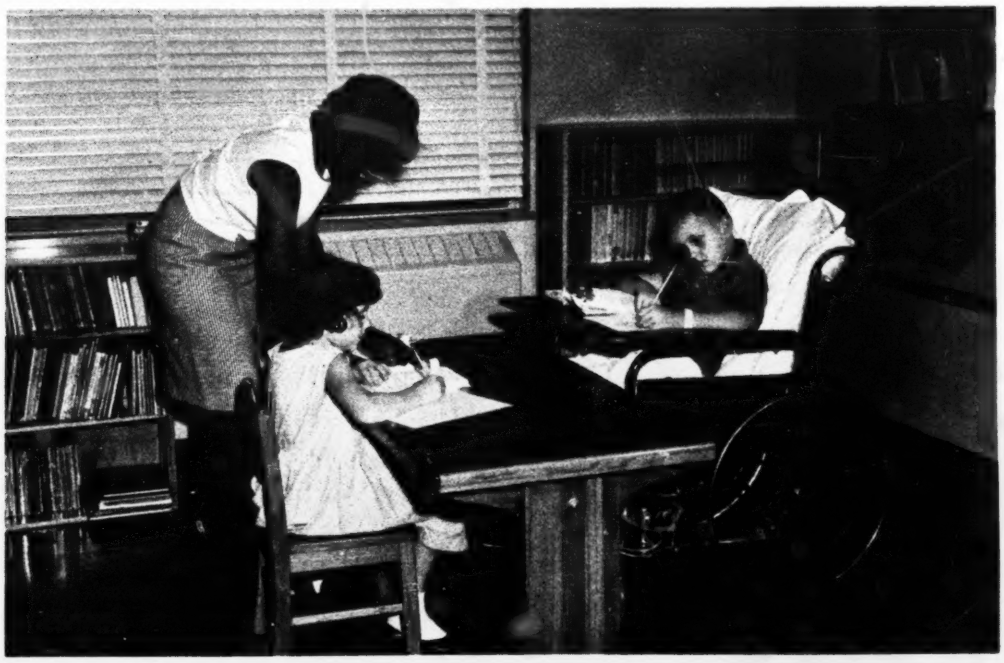
Special education programs in the colleges to prepare teachers for the various specializations in teaching physically and mentally handicapped children usually require special facilities and special staff. Some colleges even have special laboratory schools for the purpose. Usually, the public teacher-education instutitions of a State each provide for only selected specializations. Some States having small populations must secure certain special-area teachers from other States. The coordination of arrangements for securing such teachers, both within and between States, is frequently the responsibility of the State department of education. In special education, as in education generally, the State must assure an effective supply of appropriately educated teachers.

In contrast to the specific arrangements described above, fewer such arrangements exist in the area of special preparation of teachers to teach highly gifted children. Some colleges and universities, however, have developed special emphasis within certain other programs. For example, they provide additional work in psychology and in the understanding of the gifted child, and they give additional attention to developing procedures that will stimulate and utilize the gifted child's creative abilities. Thirty percent of the State departments of education now have specialists working full time, or almost full time, in the area of education for gifted children; another 30 percent have such specialists devoting halftime in this area. In this highly important area, teacher education is just beginning to gain particular emphasis within its essential broader program.

*Advanced Study Programs.*—The U.S. Office of Education recently conducted a detailed survey of 1,976 fifth-year programs in classroom teacher education as found in 462 colleges and universities. These figures represent over 98 percent of all such programs offered and

Some children need special teaching: Hard of hearing.

Some children need special teaching: Retarded.



Some children need special teaching: Hospitalized.

institutions engaged. The 1,976 programs were classified for the survey into 4 groups: (1) those for teachers seeking to increase their competence in their present teaching specialization, (2) those for teachers seeking to change to another teaching specialization, (3) those for liberal arts college graduates seeking initial preparation for teaching, and (4) those which were the fifth year of a systematic sequence of a 5-year preservice education.

Fifth-year programs have been growing rapidly, with slightly over 50 percent of those surveyed originating within the past decade and with self-improvement programs being the most numerous. A total of 86 percent of the programs in the survey provide for a teacher's improvement within his current teaching specialization. A total of 37 percent provide for qualified teachers to change to another teaching specialization, and 13 percent provide for a fifth year of preservice education. Programs for liberal arts college graduates and fifth-year preservice programs represent the areas of greatest probable development in the near future.

Among the programs in the survey, the subject areas listed below were found in the number of programs indicated:

| *Subject area* | *Number of programs* |
|---|---|
| Social studies | 1,047 |
| Practical arts | 849 |
| Physical sciences | 771 |
| English | 687 |
| Foreign languages | 638 |
| Fine arts | 567 |
| Biological sciences | 385 |
| Mathematics | 375 |
| Other areas | ([1]) |

[1] Less frequently.

Nationwide, approximately 25 percent of the public elementary and secondary school teachers taken together hold the master's degree. (The percent is higher for the latter than for the former.) Intellectual growth, cultural breadth, and professional competence are the commonly accepted aims of advanced study. Of the courses described in the reports submitted for the Office of Education survey, four out of five are distinctly more advanced than are courses of similar titles in undergraduate programs. The most common advanced-study titles in these reports are the following:

Educational Psychology
Special Methods of Teaching
Educational Research
Measurement and Statistics
Philosophy of Education
Guidance.

Subject-area titles, covering a broader area, appear less frequently.

The survey reveals a growth of internship programs in which school districts cooperate with colleges and universities to provide paid experience under special supervision and in combination with related college study. Programs of this type are proving increasingly effective.

Advanced study programs for both classroom teachers and others generally include combinations of specific educational experiences focusing on the area of the student's special interest or competence. These programs are designed to—

*Increase the student's—*

subject competence

comprehension of principles and developments in the study of the learner and the learning process

understanding of school organization and its effective operation

sensitivity to new factors affecting the role of the school within the culture.

*Develop the student's—*

understanding of curriculum development

comprehension of the principles of educational improvement supervision and of developments in this area

competence in doing and interpreting research.

Sixth-year programs in various areas are now being offered for teacher education or school administration by some 50 colleges and universities, and doctoral programs in education by almost a hundred. The educators of teachers increasingly need the doctorate. Reports show that in their advanced study they focus on their areas of special interest and responsibility. Sixth-year programs are becoming more and more common also for school-program supervisors and directors who want to improve their administrative resources and competencies rather than their research and scholarly abilities.

Fifth-year, sixth-year, and doctoral-level programs are available on both a full-time and a part-time basis. Educators generally agree that full-time programs on campus are preferable for both student and university, and the increasing availability of fellowships enables more and more students to carry these programs. Thus, full-time programs are growing rapidly.

The majority of teachers, however, continue with advanced study on only a part-time basis. Summer-session programs of all types for teachers operate throughout the country, and colleges and universities make their facilities available at times and places convenient for part-time students. Frequently, for example, large university libraries make their education collections available to students who are taking programs in the evening and on Saturday, when access to the library as a whole may be restricted. The faculties also make adaptations, modifying their teaching and other services to the needs of teachers who will be on campus chiefly during the summer, on Saturday, or during the evening.

As schools grow and require more teachers, university extension services are providing teachers with programs at the times and places that make their continuing education possible. Many such programs cooperate directly with inservice continuing education programs of local school systems. As knowledge grows and teachers require new and up-to-date courses, extension programs are making opportunities available to many teachers who cannot leave their jobs to study full time on a college or university campus. Despite predictions to the contrary, technological developments are increasing the demand for extension services. Many of these services fit into degree programs.

Although many teachers take part-time continuing education at extension centers or on campus, the major inservice programs are those sponsored by local school districts. These locally sponsored courses usually focus on specific local problems of immediate concern. Developed sometimes entirely through local resources, they frequently, however, draw upon colleges and universities for both consultative and instructional services. Occasionally, too, degree-candidate teachers taking the courses find that they can apply them as credit toward the degree. For the most part, however, locally sponsored inservice courses carry only local credit for salary-increment purposes.

Large school districts frequently have members of their central staff specialize in the development of inservice programs for continuing education. Departmental supervisors and curriculum coordinators devote much of their time and effort to such programs. In many rural areas, county school systems provide inservice programs, and across the country as a whole many professional groups do the same. Provisions for teachers' continuing education—both with and without credit—characterize the profession.

In certain educational areas where substance or procedures, or both, are evolving most rapidly, the Federal Government has for some years been providing special institutes to further teachers' continuing education. Most of these institutes are short-term, intensive summer programs conducted by colleges and universities on contract with the Federal Government. In these programs, students can often earn credit toward advanced degrees. Other contract programs, of academic-year length, also usually afford an opportunity to earn degree credit. Most of the summer-session and academic-year institutes have been in mathematics and science, but others have been offered in guidance and modern foreign languages. Private agencies too have been supporting similar institutes, notably in English.

Teachers never stop learning.

The indications are that, within the foreseeable future, the fifth year of higher education will become standard for classroom teachers and common for supervisors, and that the number of teachers educated through the doctorate will double. In teacher education two kinds of doctorate programs are evolving: those for researchers and scholars and those for educators with extensive professional responsibility.

## Developments

The present time is a stimulating one to be engaged in teacher education in the United States. Support for research in teacher education is appearing. Encoding of data for organized storage and instantaneous retrieval is providing new depths to educational resources. New media are extending the educator's arm and influence. Professional vigor and vision are high.

*Unifying Tendencies.*—In terms of organization, a unifying tendency is bringing together by common consent various organizations and facets of teacher education formerly separate but having common educational concerns and objectives that need and should have the advantage of many and varied contributions. On college and university campuses this tendency is reflected by a trend toward all-institutional committees to handle teacher education interests. Broad faculty participation in policy making is operating at many institutions, where joint education and liberal arts committees are being formed. At the State level, separate boards of control are being coordinated or unified. Nationally, formerly divisive factors between and among teacher education organizations are giving way to wide bases of assistance, but without interference in each organization's affairs, for the common good of the profession.

*Joint Efforts in Science Education.*—In terms of curriculum improvement, one major contribution—in a sense growing out of the cooperative disposition just described—is a project on guidelines for programs to educate science and mathematics teachers, jointly sponsored by the National Association of State Directors of Teacher Education and Certification and the American Association for the Advancement of Science. Based on the cooperative contributions of professional educators of many educational disciplines, these guidelines affirm for teacher education in science and mathematics such program features as the following:

> Broad general education, with adequate attention to human growth, learning, and behavior
>
> The kind of college or university instruction that will develop real understanding of the processes of scientific inquiry and mathematical thinking
>
> College-level study of the subject which the student is going to teach in the schools
>
> Sufficient preparation of the student for later pursuit of graduate study.

*Honors Programs.*—The development in teacher education of honors programs for superior students has been characterized by the following: early admission to college, independent study in preservice summer sessions, and accelerated programs. New dignity and respect are being accorded to students for excellence in subject-matter courses.

*Teaching in Poor Sections of a City.*—A new kind of regard for, and cooperative disposition toward, the challenge to teach in the difficult school situations that exist in disadvantaged and impoverished sections of a city are evident throughout teacher education. This attitude is reflected in special programs to encourage and recruit young people who will accept such a challenge and to educate them in courses that will adequately prepare them for the work.

*Use of Television.*—By means of television, students in educational psychology classes, for example, have the opportunity to see every movement and hear every word of children in the classroom—children ready at hand, live, and unpredictable. Also through television the future teachers can observe a fellow student in the act of practice teaching and later by means of kinescope or video-tape playback of that scene can share observations and criticism with the fellow student himself.

*Supervision of Student Teaching.*—Summer institutes that aim to prepare local teachers for their responsibility in supervising a student teacher are a great help to them in improving the quality of their supervision. Teacher internships, a sound though rather expensive means for a more professional induction of new teachers into the profession, are also growing in number.

*College Courses Conducted in the Spanish Language.*—International exchange and intervisitation are being facilitated and increased at many different institutions and under various governmental and nongovernmental programs. A unique program of the latter type is one undertaken recently by a university, which established on its campus a college of liberal arts, where the Spanish language is the medium of instruction. About 60 percent of the present student body are from Latin America and the remaining 40 percent from the United States.

Many of the Latin American group have actually never had the opportunity to study English—for example, those whose homes are in remote rural areas. In any case, the students' command of the English language is not sufficient to enable them to pursue higher education courses in English. Thus, the unique opportunity afforded them in the present instance removes the language barrier to their profiting from a college education in the United States. The courses they take are both liberal arts and teacher education and they also take, as required work, courses in English as a foreign language. They have the further advantage of dormitory association with the U.S. students, who in order to be admitted to the college must possess a certain college-level proficiency in Spanish.

## Problems

*Inside the Profession.*—Within the context of the attractive and promising developments discussed above, some difficult and severe problems are still far from solution. Inside the teaching profession, the crucial problem is to give substance to the vision of teacher education as the common task and responsibility of the whole college or university. The developments of the past several years prove that such substance *can* be achieved. But to achieve it widely is yet to be accomplished. The seemingly interminable debate over liberal-versus-professional control injects a pseudoissue. That both sides must share was discovered long ago. As control meshes with knowledge, a major problem is how to apply knowledge more effectively to the sharing.

A career that builds careers.

*Outside the Profession.*—The crucial problem outside the profession is so to win the allegiance and support of parents that a greater proportion than ever before of their sons and daughters will be encouraged to consider teaching as a career.

*Toward a Solution.*—Once the problems identified above are solved, technical matters will fall into line. Looking toward a solution, the profession itself recognizes that it needs to do certain things, among them the following:

**Improve its competence to individualize instruction so that youth's potential for study is not squandered in scattered mass assignments.**

**Focus greater research efforts than ever before on developing a breakthrough in the search for the basic facts of how people learn.**

**Refine the quality of the profession's insight into teacher competencies so that the profession may support the learning process still more effectively.**

Teacher education is moving toward accomplishment of these tasks and thus toward a solution of the problems cited, as well as other problems in teacher education.

## Outlook

From all angles, the outlook for teacher education in the United States is healthy. Those most concerned—thousands and thousands of people in colleges and universities, school districts, professional associations, and governmental agencies across the land—are sensitive to teacher education's problems, promise, and sustaining heritage alike.

Those values of the people which provided the energy for the Nation to develop are the same values which have enabled teacher education to accomplish all it has accomplished in developing the outstanding educational system of this country. Educators know the power of teacher education, are sensitive to its problems, and are using that power to help solve these problems in such a way that a more abundant life may be achieved for both those who teach and those who are taught.

INFORMATION RETRIEVAL CENTER ON THE DISADVANTAGED
Ferkauf Graduate School of Education, Yeshiva University

U.S. GOVERNMENT PRINTING OFFICE : 1964 O—728-035

UNITED STATES
GOVERNMENT PRINTING OFFICE
DIVISION OF PUBLIC DOCUMENTS
WASHINGTON, D.C. 20402

OFFICIAL BUSINESS

PENALTY FOR PRIVATE USE TO AVOID
PAYMENT OF POSTAGE, $300